ASBPE Magazine of the Year 2006

GOING GREEN
IT managers eye energy-efficient data center technologies. **PAGE 6**

COOKING UP GREAT IT
Virginia Robbins sees unexpected parallels between running a restaurant and an IT department. **PAGE 24**

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SEPTEMBER 18, 2006 ▪ VOL. 40 ▪ NO. 38 ▪ $5/COPY

HP Leak Scandal Makes Waves Among Users

Some IT managers see deep problems; others are indifferent to board moves

BY TODD R. WEISS

Some users last week said the shake-up of Hewlett-Packard Co.'s board of directors reveals a company in turmoil, while others said it won't affect their use of HP technology.

The board's move last week to replace Chairman Patricia Dunn with President and CEO Mark Hurd, effective Jan. 18, came amid an outcry over tactics used by the company to investigate leaks of corporate information from board members to journalists.

INSIDE

HP officials and outsiders face indictments in leak probe. PAGE 16

Don Tennant calls on CEO Mark Hurd to address the issue at Tech Forum.

Dunn had been under pressure to step down as chairman of the company since the leak investigation came to light two weeks ago. She will remain a member of the board.

Steve Dunlap, manager of network engineering at Alaska USA Federal Credit Union in Anchorage, said the controversy reinforced a decision his employer made two years ago to replace HP equipment with products from Dell Inc.

The recent news is a sign that "the internal turmoil [at HP] is continuing," Dunlap said during the AFCOM Data Center World conference in Orlando last week. "I think a lot of this turmoil has affected the way they provide service, and I think it's distracted them."

Prior to the incident, HP seemed to be moving beyond the management problems that led to the ouster of former CEO Carly Fiorina, Dunlap said.

Now the U.S. Department of Justice and the California attorney general's office are investigating whether illegal tactics were used to obtain the phone records.

Charles King, an analyst at Pund-IT Inc. in Hayward, Calif., said that HP's board woes are "totally self-inflicted. Their

HP Leak, page 16

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SPECIAL REPORT

See how 15 companies used the power of analytic software to make better business decisions and produce a big ROI. Page 28

SUSAN FARRINGTON

Card Snafu Disrupts E-voting in Maryland

Lack of access cards forces thousands of voters to use paper ballots in primary

BY MARC L. SONGINI

Some 12,000 voters in a Maryland county were forced to use makeshift provisional ballots when they couldn't gain access to e-voting machines during last week's primary elections.

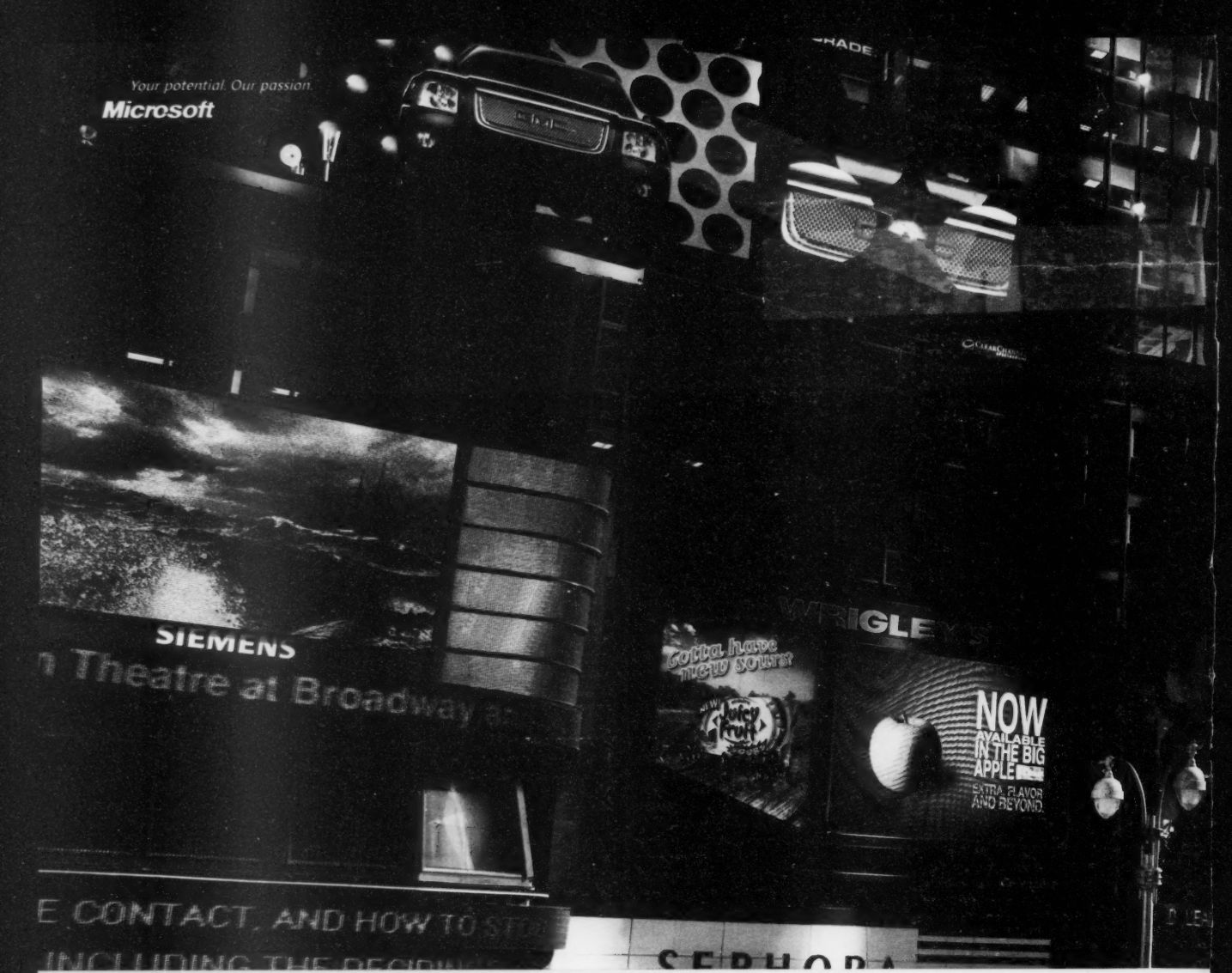
Election officials said that an apparent human error temporarily left would-be voters in 238 precincts in Montgomery County without the access cards required to operate the e-voting hardware. The county has used touch-screen voting machines from Diebold Election Systems Inc. since 2002.

As a result of the snafu, poll workers were forced to scramble to provide paper ballots to voters. In some locations, those ballots ran out before the access cards were delivered, election officials said.

The error was as simple as it was disruptive. The missing cards, which are about the size of a credit card, are used by voters to gain access to the Diebold AccuVote TSx touch-screen systems, said Marjorie Roher, administrative specialist at the Montgomery County Board of Elections. The card prompts a ballot to appear on the touch screen and allows votes to be cast, she said.

However, the access cards needed for Tuesday's primary election weren't in the sealed election supply bags provided

E-voting, page 61



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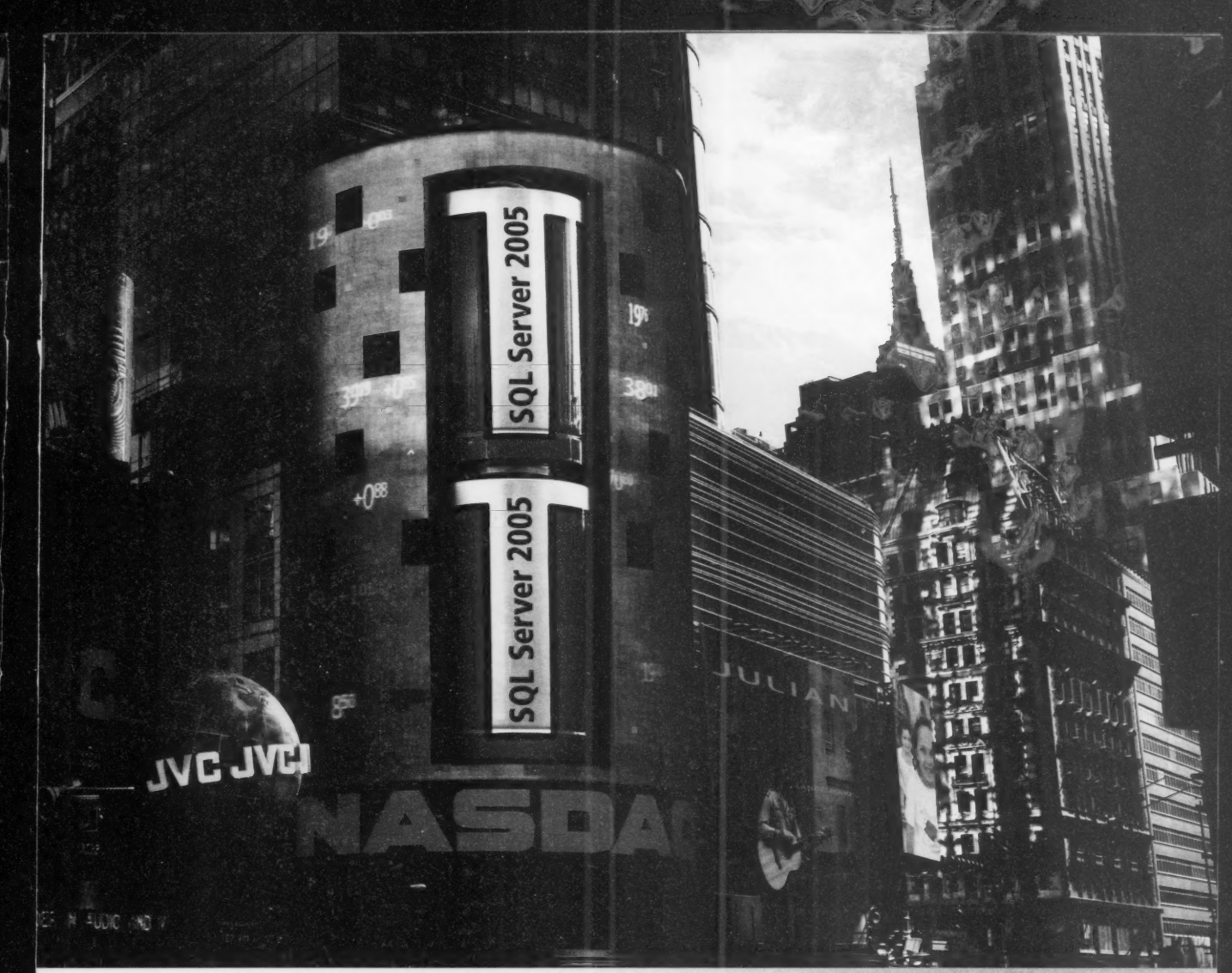

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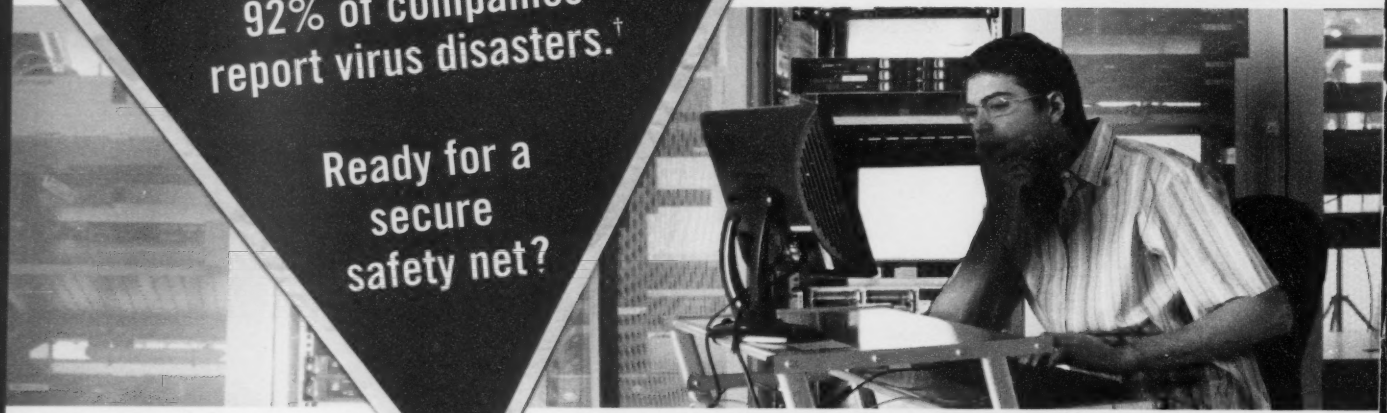

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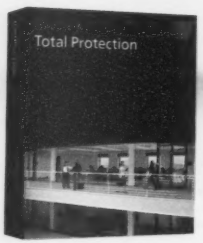

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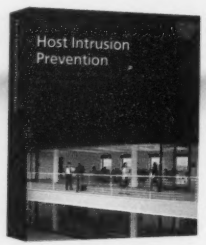

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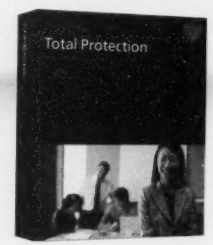

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†Storage Magazine, February 2005.

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6 The biggest challenges facing companies moving to SOA are not technical. Rather, they involve educating people and breaking down old development paradigms, say speakers at the SOA Summit.

8 SAP plans to simplify its upgrade process and says that mySAP ERP 2005 will be its core platform until 2010.

8 BEA Systems hopes its new customer support initiative will identify problems in its middleware before users notice them.

12 Server virtualization technology is firmly entrenched in IT shops, say attendees of Infrastructure Management World.

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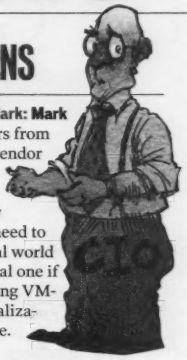

10 On the Mark: Mark Hall hears from a software vendor that management and security appliances need to leave the real world for the virtual one if you're running VMware's virtualization software.

24 Don Tennant thinks this week's HP Technology Forum gives CEO Mark Hurd and his executive team a golden opportunity to demonstrate courage and transparency in the wake of HP's boardroom scandal.

24 Virginia Robbins says a foggy Sunday afternoon and TiVo helped her see unexpected parallels between running a restaurant and running an IT department.

62 Frankly Speaking: Frank Hayes warns IT departments to be prepared as Microsoft plans to put free copies of Vista Release Candidate 1 into the hands of millions of users.

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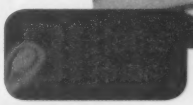
SPECIAL REPORT

Editor's Note: For this special report, we set out to find stellar examples of better business decisions through BI. Read about 15 companies that have done just that. **Package begins on page 28.**



30 Staying Stocked During Disaster. When Katrina shut down its suppliers, United Pipe & Supply used BI to prioritize its needs and keep customers serviced. "We have raised the bar on the performance of the company," says Mike Green, CIO and vice president of operations (pictured at right).

36 Detecting a Web of Fraud. Blue Cross Blue Shield provider Highmark used BI tools to spot unusual treatment and billing patterns, helping to trap a group of insurance scammers.

38 Getting Schedules in Sync With Customers. Virgin Entertainment boosted its sales by putting products — and store personnel — where customers need them.

42 Keeping a Watchful Eye on Patients. Members of the Humana insurance group who are struggling with illnesses are identified and helped, driving down costs and improving care.

43 Making Price Adjustments on the Fly. Noticing a dip in a key revenue stream, hardware distributor Hillman adjusted pricing to stop market erosion.

46 Measuring the Emergency Room's Pulse. BI tools help Emergency Medical Associates identify peak times and case types, allowing for better scheduling of ER resources.

47 Fine-tuning a Sales Strategy. Using BI analytics data, call center agents at 1-800 Contacts changed selling tactics to focus on helping with physician follow-up rather than the hard sell.

50 Skills: When Art Meets Science. BI professionals are in demand, but the job takes a rare combination of business and technical skills.

54 Opinion: A Battle Over BI. If you don't know what you'll do if an intelligence agency asks for your customer data to help find terrorists, find out now, says columnist Mark Hall.

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The following stories can be found online at computerworld.com/bi:

NEWS: Read the latest from *Computerworld*'s BI Perspectives conference in Las Vegas on our Web site, beginning Sept. 25.

WEBCASTS: Tune in to our webcast series on BI to learn what you'll need to turn your company's BI vision into reality. Topics include data quality, required technologies, reporting options, and getting management and staff buy-in.

EXECUTIVE BRIEFING: *Computerworld*'s briefing provides insight into moving BI tools to the front of the business. Topics include Web services, BI dashboards and other examples of real-time BI.

AT DEADLINE

Mozilla Releases Patches for Firefox

Mozilla Corp. has released an updated version of its Firefox browser that fixes seven security problems. Mozilla rated four of the flaws "critical," but Danish research firm Secunia rated them "highly critical," saying they can be exploited to conduct various scripting attacks and potentially compromise a user's system.

Oversight of CA's Finances to Continue

CA Inc. and the U.S. Securities and Exchange Commission have agreed to extend the term of the independent examiner overseeing the software vendor's financial reporting. CA said the term of examiner Lee Richards was extended to May 1, 2007. The term had been due to expire on Sept. 16. Richards was hired in March 2005 as part of an agreement between CA and a New York federal court.

Software Flaw Leads To Segway Recall

Segway Inc. is recalling all of its 23,500 Personal Transporters because of a software glitch that can make the wheels of the electric scooters unexpectedly reverse direction and cause a rider to fall. The U.S. Consumer Product Safety Commission said people should stop using the vehicles immediately and contact the company to request a free software upgrade. The company has received reports of six accidents caused by the glitch.

HP Extends Deadline For Mercury Deal

Hewlett-Packard Co. has extended the deadline for Mercury Interactive Corp. shareholders to tender their shares in favor of HP's proposed $4.5 billion acquisition of the firm. The deadline, originally slated for Sept. 14, is now midnight on Sept. 28. HP agreed to buy Mercury in July in a move it said would strengthen its menu of IT management software and services.

Data Centers Eye 'Green' Power

Users exploring energy alternatives such as fuel cells and flywheels

BY PATRICK THIBODEAU
KISSIMMEE, FLA.

JOSEPH WELLER, manager of computer operations at Delta Dental of Michigan, just purchased a hydrogen fuel cell car kit for his 10-year-old grandson's birthday. "I thought it was kind of cool," he said between sessions at the AFCOM data center conference here. But Weller said he has a professional interest in the toy's energy system, too.

"We have to find alternative means of power — we can't rely on current technology" forever, said Weller, noting that if the fuel cell can move a 12-inch toy car, the technology may be able to power computer facilities someday. Delta, an Okemos-based insurer, has some 5.5 million members.

There's growing interest in "green" power technologies, even though IT managers at the conference said they don't expect to see fuel cells arriving in their data centers anytime soon because of the technology's immaturity and cost. But efforts are under way to figure out how best to power data centers with alternative fuels.

The U.S. Department of Energy and the National Institutes of Health are exploring whether fuel cell technology can be used to power the NIH's computer facilities, said Paul Powell, data center manager at the Bethesda, Md.-based federal agency. Powell said he's interested in fuel cells but finds it difficult to believe that they can power his data centers.

"As a data center manager, I have concerns. It's going to take up an awful lot of space," he said.

Generators Cheaper

American Power Conversion Corp. introduced fuel cells for data centers last year. But a fuel cell system costs about 10 times more than a generator, and early adopters have either been located in high-rise buildings where generators aren't an option or used in situations requiring portable energy supplies.

Fuel cells rely on hydrogen and chemical reactions to produce energy, leaving water as a by-product. APC's fuel cell technology can produce up to 30 kilowatts of electricity — enough to power some large blade servers — for about 10 minutes from one hydrogen tank, which is typically the size of a welder's tank.

That's where Powell's concern about size comes in. He said he might need a separate building just to house the fuel cells and tanks required to power his two data centers, which together use 1 megawatt of energy each month.

Brian Cihak, a network and data center engineer at BFS Retail & Commercial Operations LLC in Bloomingdale, Ill., said fuel cell technology hasn't "quite reached the maturity that's needed yet, but it's certainly well on its way."

Another power technology getting attention is the flywheel, offered by companies such as Pentadyne Power Corp. in Chatsworth, Calif., and Active Power Inc. in Austin. If power is interrupted, spinning flywheels can provide power for up to 30 seconds, in lieu of batteries.

James Montanio, a systems administrator at the Lower Colorado River Authority in Austin, said the flywheel technology he uses works fine, with the added benefit that there's no need for batteries. ▸

Fuel Cells 101

HOW THEY WORK: A fuel cell uses hydrogen and oxygen to create an electrochemical process to produce electric energy. The by-product is water.

COST: Fuel cells cost about $4,500 per kilowatt, whereas a diesel generator costs $800 to $1,500 per kilowatt, according to the Department of Energy.

FUTURE: The goal is to cut that cost to $400 per kilowatt or less by the end of the decade through mass production, the DOE said.

APC's fuel cell system operates on hydrogen fuel and can produce up to 30kW.

SOA Upends Development Traditions

BY HEATHER HAVENSTEIN
WASHINGTON

Moving toward a service-oriented architecture often means radically changing how a company uses software applications, though some of the most vexing issues associated with an SOA are not technical issues but rather challenges managing people and policies during the shift.

That was the message from several speakers last week at Georgetown University's SOA Summit. Many said they are anxious to embrace SOA as a way to break down rigid business applications into dynamic pieces that can be tied together on the fly to respond to changing business conditions.

Steve Wolf, senior enterprise architect at Marriott International Inc., for example, said one of his company's biggest hurdles is retraining developers to think of composing applications as an iterative approach rather than using the traditional waterfall method, where the development process lacks collaboration and is highly compartmentalized.

"The hardest part is we're talking about an entirely unfamiliar development environment, and you can't be using a waterfall approach," Wolf said.

The entire development process, including gathering requirements, testing and managing IT operations, has to be revised to support an SOA, he added.

For example, he said, developers in different departments must learn to reuse a service that can calculate a hotel room rate, instead of re-creating it each time they build a new application that includes those calculations. However, he noted, people don't typically like to rely on others for this type of work.

Harvey Reid, chief engineer of the U.S. Air Force's Global Combat Support System (GCSS), said one of the SOA challenges he is grappling with is how to placate program managers used to owning and operating their own applications when they are asked to share services with other departments.

"Program officers are king, and determining who is going to do the coordinating [of services] is a tough problem," he said.

GCSS, which is charged with integrating Air Force combat IT systems to support deployed forces, is tackling this problem by hammering out agreements requiring that "when someone is intending to make a change, people can be notified and brought into the discussions," Reid added. ▸

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SAP Shifts Upgrade Policy to Woo Users

MySAP 2005 will remain its core platform until 2010

BY MARC L. SONGINI

SAP AG, which has a reputation for shipping bulky, monolithic, hard-to-install iterations of its software, intends to simplify the upgrade process for customers.

Instead of releasing completely revamped application suites every two years or so, SAP plans to make mySAP ERP 2005, which started shipping in June, its core platform until 2010. Customers wanting to add functions will receive smaller, more easily digested ERP components every three to six months that they can install on their own.

SAP announced the plans last week at its TechEd 2006 technical user conference in Las Vegas.

"There is no mySAP ERP 2006 or 2007; mySAP ERP 2005 is it," said Peter Graf, executive vice president of SAP product marketing. "That's the platform. There is no reason to wait for an additional ERP release. It's stable for five years, and you don't need to wait for anything."

By December, SAP will start shipping new enhancements that will be geared toward service-oriented architectures (SOA).

These "more consumable chunks" of technology will come with documentation, service definitions, composite applications and libraries, Graf said. Customers will be able to search through an xApps hub to find the particular composite applications they might want to install on top of their mySAP ERP 2005 backbone, he added. SAP will also provide tools such as collaborative wiki repositories to allow users to share knowledge and definitions. Pricing will be based on the number of users.

> **There is no mySAP ERP 2006 or 2007; mySAP ERP 2005 is it.**
>
> PETER GRAF, EXECUTIVE VICE PRESIDENT, SAP AG

Some IT managers were upbeat about the new upgrade policy, particularly because it sets out a clear road map. Many companies still use SAP's older R/3 ERP product and are struggling to create a business case to justify an upgrade to mySAP ERP 2005, said Matthew Rickard, executive vice president of the Americas' SAP Users' Group (ASUG). He's also special projects manager at the New Brunswick Power Holding Corp., an SAP R/3 shop in Fredericton.

Such an upgrade is a large, expensive jump, and a company often faces the prospect that there will soon be yet another upgrade, Rickard explained. Now SAP is offering a clear path that lets users pick and choose which pieces of an upgrade they want, he said. His own company is contemplating an upgrade to mySAP ERP 2005 over the next year to take advantage of new functions such as the Duet technology, which binds back-end SAP software with front-end Microsoft Office applications.

Knowing that there won't be another big upgrade in 2007 will help customers make more-informed ERP choices, said Rodney Masney, president of ASUG and global IT architect at Owens-Illinois Inc., a Toledo, Ohio-based maker of packaging materials. His company runs mySAP ERP 2004 and plans to upgrade to the 2005 version.

Customers will "know with confidence mySAP ERP 2005 will be around for a while," Masney said.

No other first-tier ERP vendor offers upgrades like those that SAP has announced, said Gartner Inc. analyst Yvonne Genovese. She said that having an SOA-based system allows SAP to more easily break down its technology into smaller pieces instead of shipping it as a monolithic structure. ▸

SAP Rollout Hits Wabash Profits

WABASH NATIONAL CORP. is working to stabilize an implementation of SAP business applications.

The Lafayette, Ind.-based maker of commercial truck trailers had said that problems that resulted from the flawed rollout of the software have hurt its production and shipping operations, contributing to disappointing second-quarter earnings. It reported $5 million in profits for the period, down from $49 million in the same period last year.

A spokesman for Wabash National last week declined to discuss the complications that resulted from the SAP implementation.

However, the company claimed that the problems are not related to the SAP software, which is replacing a mix of homegrown and third-party applications.

The company was hit with materials shortages just after going live with the SAP software in May, Wabash said. The problems hampered manufacturing operations, even causing downtime on the production line, the company said.

Wabash said it expects the materials shortage will limit its ability to make trailers until November.

An SAP spokesman last week said the vendor is helping Wabash National handle the problems, which he also noted "were not related to the software."

– MARC L. SONGINI

BEA Support Initiative Will Preemptively ID Problems

BY HEATHER HAVENSTEIN

BEA Systems Inc. is set to unveil a new customer-support initiative that it claims can identify potential problems in its middleware before a user notices them.

BEA CEO Alfred Chuang is scheduled to announce the Guardian project tomorrow at the company's BEAWorld user conference in San Francisco. Guardian is made up of lightweight agent software and a console that alerts users to potential problems like configuration errors, security vulnerabilities and defects that haven't been patched, said Todd Chipman, BEA's senior director of marketing. It will be included at no additional cost to users' existing support and maintenance contracts, beginning in December.

"We can actually provide a recommendation and resolve a problem before the customer in some cases is even aware of it," Chipman said.

Octavio Galindo, an IT consultant at Grupo Financiero Banamex, a Mexico-based financial services firm and a subsidiary of Citigroup Inc., said he estimates that Guardian will allow him to reduce by 75% the time he dedicates to monitoring for needed upgrades and patching his company's 25 installations of BEA's WebLogic's application server.

"Guardian works in a way similar to an antivirus framework — you can test your environment automatically against an updated knowledge database," he said. "All those known bugs can be monitored and detected before they bite."

Guardian also automates the process of gathering information needed to address a problem, so BEA support personnel don't have to go through the current "tedious, ineffective" process of collecting data and uploading it to the support site, said Galindo.

Mehul Shah, senior manager of Verizon Communications Inc.'s homegrown service-oriented architecture, called IT Workbench, said this type of support is useful today but will be required in the future.

As an SOA grows, the complexity of integration increases, boosting the difficulty of troubleshooting any issues that may arise in that environment, Shah said.

AT A GLANCE

Guarding IT Operations

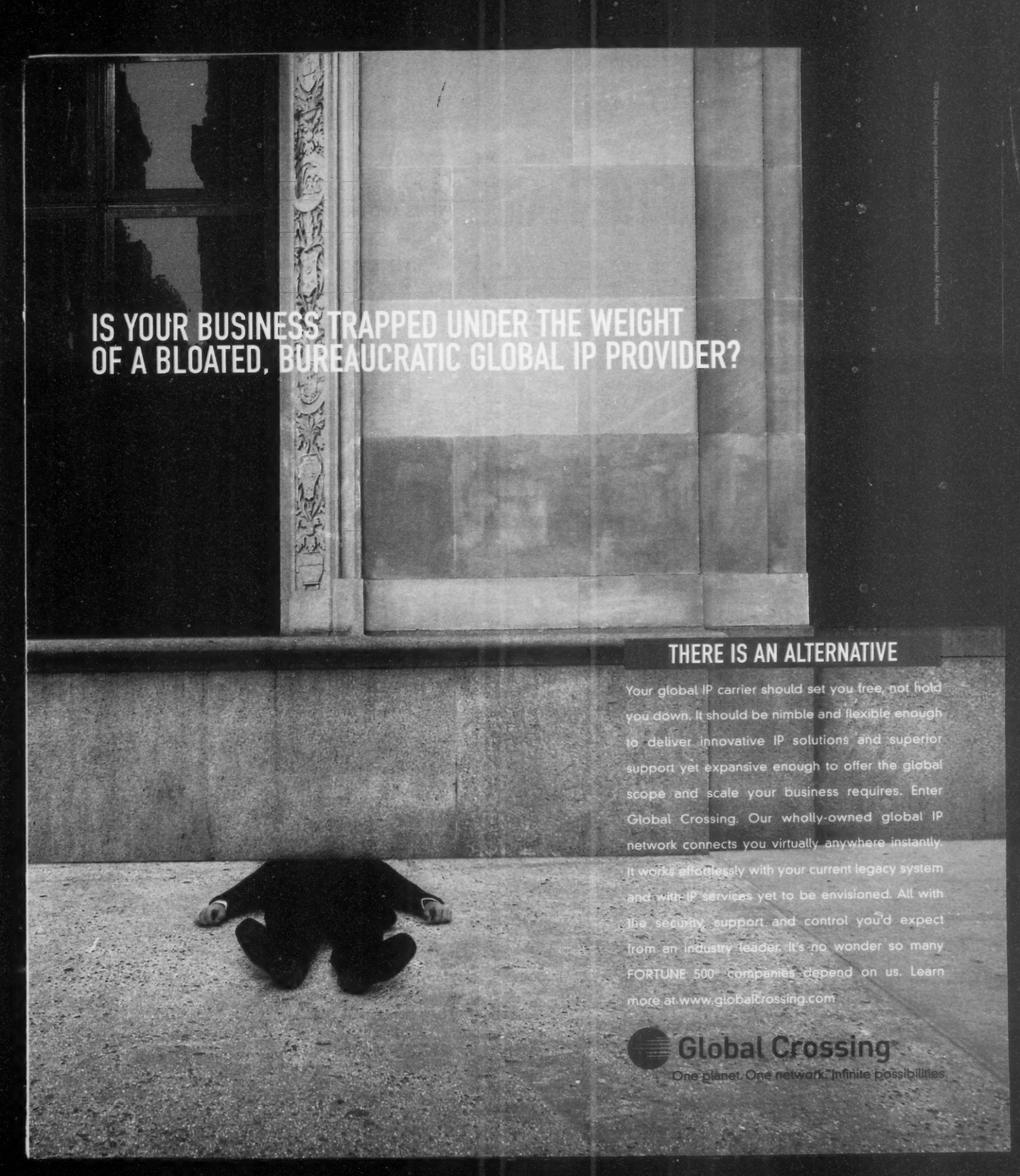
- Guardian will be available in a beta version beginning Sept. 18 and generally available in December.
- Initial products that will include Guardian are WebLogic Platform 8.1 and above, and BEA products built on WebLogic application server.
- BEA intends to add support for other vendors' systems to Guardian in the future.

Once a problem is identified by Guardian, the user is offered various options, including downloading a patch to resolve it, linking to a database to obtain more information about it or talking to a customer support representative, Chipman said.

The system automatically sends that representative the required files for troubleshooting the problem.

Guardian will initially be available for use with BEA WebLogic 8.1 and later, with all subsequent releases and products built on the WebLogic application server.

Sandy Rogers, an analyst at IDC, said that Guardian is designed to help users curb the complexity and risks associated with managing middleware projects that must have guaranteed availability within an SOA, where a service can be called at any time. ▸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BRIEFS

Messman Quits Board Seat at Novell

Jack Messman has resigned from Novell Inc.'s board of directors, about six weeks earlier than expected. "This was just a personal decision by Jack," a spokesman said in an e-mail. Messman was ousted from the company's chairman and CEO posts in June, a move board members said would better position the company for growth.

McAfee Apologizes For Software Bugs

McAfee Inc. has apologized to users for bugs in its line of client protection software released last month. In an e-mail sent last week, Executive Vice President Bill Kerrigan acknowledged that there had been glitches in the rollout. "We would like to extend our sincere apologies to anyone who may have had problems with their computers due to the upgrade," he wrote. McAfee estimates that less than 1% of customers who downloaded the new software have had difficulties.

WebMethods to Buy Infravio for $38M

WebMethods Inc. has agreed to acquire Infravio Inc., a maker of governance tools based on a service-oriented architecture, for about $38 million in cash. The deal is expected to close later this month. Infravio is the second SOA-focused acquisition for WebMethods in recent weeks. In August, it purchased Cerebra Inc., a maker of semantic metadata management technology.

Intel Sells Division To Cortina Systems

Intel Corp. has sold its optical networking components division to Cortina Systems Inc., a maker of communications chips, for an undisclosed sum. The company, which recently announced plans to cut 10,500 jobs in a corporate reorganization, declined to disclose the number of workers in the division but said the sale won't necessarily result in more layoffs.

ON THE MARK

HOT TECHNOLOGY TRENDS, NEW PRODUCT NEWS AND INDUSTRY BUZZ BY MARK HALL

MATTHEW FAULKNER

Got Virtual Servers? Get Ready for . . .

. . . virtual appliances. IT managers grew tired of having to separately maintain countless infrastructure management and monitoring software tools, so vendors began packaging their point products in dedicated appliances. Well, that may be fine for your old-fashioned, real-world infrastructure. But what about your virtual computing environment? Andres Kohn, vice president of product management at Proofpoint Inc. in Cupertino, Calif., argues that IT needs "virtual appliances" for systems using VMware Inc.'s virtualization software. Enter the Proofpoint Messaging Security Gateway for VMware, which is in beta now and is scheduled to ship in Q4. The software does what Proofpoint's real-to-the-touch appliances do — scan incoming and outgoing messages for violations of content management and security policies. But it does so as a VMware image that you load onto a server running the virtualization software. The virtual appliance will reduce energy costs, Kohn notes. And although pricing has yet to be set for Proofpoint's software, it will cost less than a hardware appliance, he says. The only thing is, you might miss the comfort of seeing all those steady-state green LEDs on actual appliances in your data center.

KOHN: Virtual appliances for a virtual world.

Multifunction gateways are now . . .

. . . ready for the real world. That's Bill Jensen's contention. Jensen, a product manager at Check Point Software Technologies Ltd. in Redwood City, Calif., says that firewalls and other security software products often have extra features that, when turned on, degrade their performance by up to 90%. He cited intrusion-prevention systems (IPS) as an example. But Jensen says that as a result of joint work with Intel Corp., Check Point's VPN-1 Power software now is "a true multifunction gateway" with enough oomph to simultaneously run firewall, IPS and virtual private network services. Part of the trick was to tune Check Point's software to work blazingly fast on Intel's new Woodcrest-class Xeon processors. Also, Intel made some specific changes to the system BIOS in the Woodcrest chips to further boost the Check Point software's performance. The firewall can churn through 10Gbit/sec. of data when running on its own, Jensen says. If you turn on the VPN and IPS features, you'll get firewall performance of 430Mbit/sec., which he contends is plenty for most corporate data centers. "You still take a 90% performance hit," Jensen acknowledges — more than that, actually. But because the overall performance is jumping by nearly a factor of 10, the net result is a security gateway that is "data center worthy," he says. The new release costs $13,000 for an unlimited user license and is due out by the end of the month.

A true multifunction gateway is here, says JENSEN.

Archive your e-mail via . . .

. . . a hosted service. By month's end, Electric Mail Co.'s Vault Smart e-mail archiving service is scheduled to exit its beta stage and become generally available. Ian McDonald, general manager of the e-mail services firm in Burnaby, British Columbia, says the service includes a 4.2GB archive for each end user and holds messages for seven years, although you can get more storage and keep the data longer for an extra fee. Every message is indexed and can be retrieved "instantly" through a Web-based user interface, McDonald says. Vault Smart starts as low as $4 per user monthly.

34% Percentage of each day a typical worker spends using e-mail, says Osterman Research Inc.

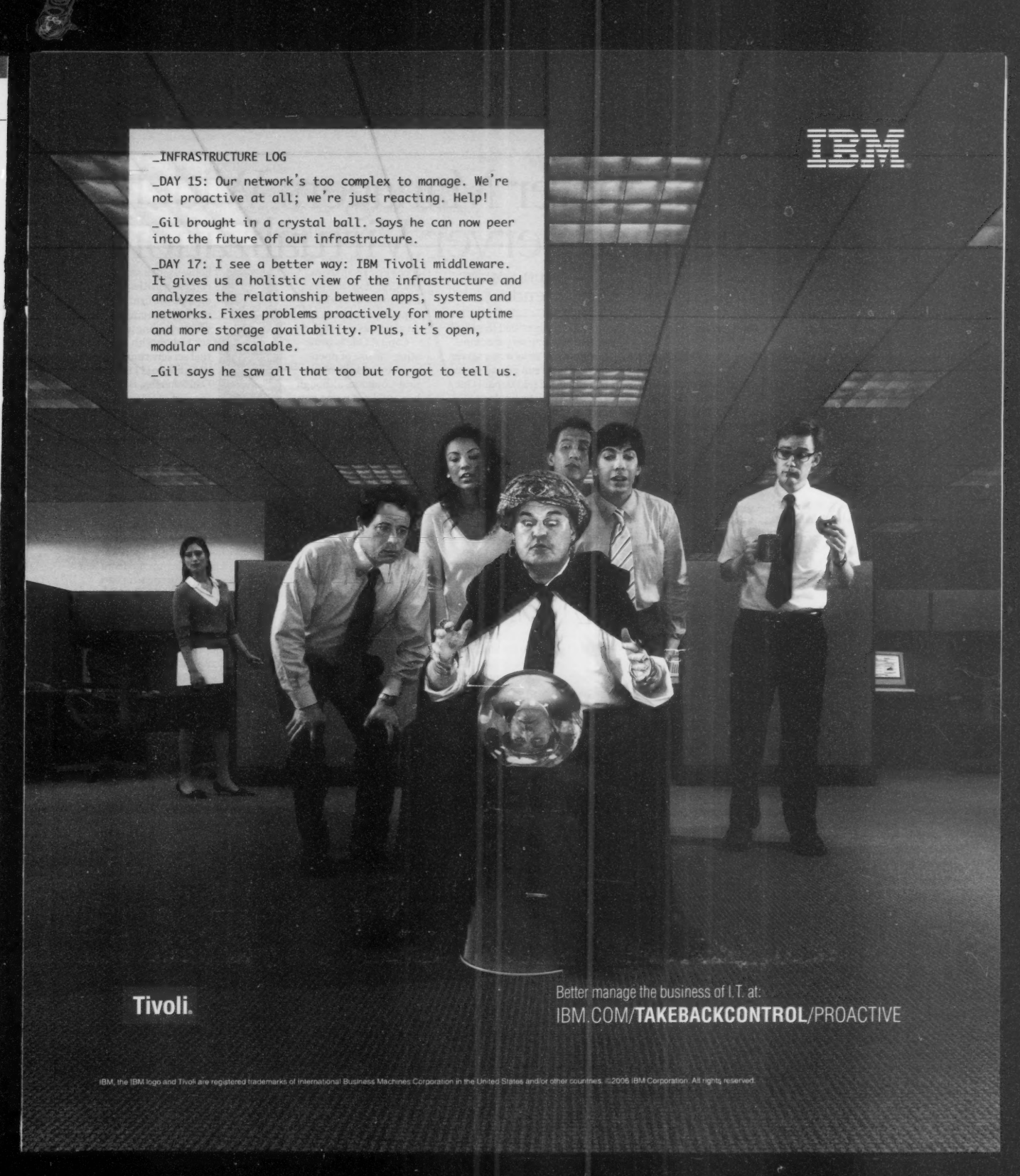
Being a small business is no reason . . .

. . . to look like one online. Ron Wilkins, chief technology officer at B2X Corp. in Jersey City, N.J., says that when his company's namesake software ships by Nov. 1, it will provide "just-in-time software functionality" to small and midsize online retailers. Wilkins says the B2X Commerce Suite includes a rules engine that can create triggers for actions or alerts on "anything the system is aware of." For example, you can link the software to the inventory systems of suppliers so you can get alerts on the status of their goods, or set up workflow processes to handle back-order problems. Pricing has yet to be set.

$316B Online retail sales by 2010, predicts Forrester Research Inc.

SOAs will free IT from doing . . .

. . . app-dev work. So says Dan Basso, CEO of Systemware Inc. in Addison, Texas. Systemware sells content integration software called Centraspect that creates a central repository of the metadata from corporate applications. Basso says that Centraspect is based on a service-oriented architecture and requires little or no programming to assemble custom apps from within the software. He suggests that "business people" will soon be designing and creating their own applications from respositories like his. "Ultimately," he claims, "no code will be needed at all." A pipe dream? Perhaps. But one shared by many in IT and on the business side.


_INFRASTRUCTURE LOG
_DAY 15: Our network's too complex to manage. We're not proactive at all; we're just reacting. Help!
_Gil brought in a crystal ball. Says he can now peer into the future of our infrastructure.
_DAY 17: I see a better way: IBM Tivoli middleware. It gives us a holistic view of the infrastructure and analyzes the relationship between apps, systems and networks. Fixes problems proactively for more uptime and more storage availability. Plus, it's open, modular and scalable.
_Gil says he saw all that too but forgot to tell us.
IBM
Tivoli.
Better manage the business of I.T. at:
IBM.COM/TAKEBACKCONTROL/PROACTIVE
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BRIEFS

Probes Force Dell to Delay Filing Earnings

Dell Inc. has delayed filing its quarterly earnings report with the U.S. Securities and Exchange Commission in order to continue an internal audit. The company warned that the audit may force a restatement of past earnings statements. Dell's board of directors began the audit after learning in August 2005 that the SEC had begun an investigation of the company's revenue recognition and accounting practices.

Microsoft App Exec To Exit Next Year

Doug Burgum, Microsoft's business solutions group senior vice president, has announced plans to leave the company next year. He is seen as the person largely responsible for creating Microsoft's now-considerable ERP business. Corporate Vice President Satya Nadella will replace Burgum, who plans to remain at Microsoft until next June to help with the transition.

Business Objects Buys Software Firm

Business Objects SA has agreed to buy Armstrong Laing Ltd., a maker of profitability management software, for about $56 million in cash. The deal is expected to close by the end of this year. Armstrong, also known as ALG Software, has about 400 customers and claimed revenue of about $19 million last year.

Intel, Siemens Launch VoIP Project

Intel Corp. and Siemens AG have agreed to jointly develop new enterprise communication systems using VoIP technology. Intel and Siemens will both fund and conduct research focused on developing VoIP-based systems using Intel's dual-core chips and rack-mounted servers and Siemens' HiPath 8000 and OpenScape telecommunications technology. The two companies plan to demonstrate their initial findings by the end of this year.

Data Center Managers Widely Embrace Server Virtualization

Some users skeptical of open-source options, say conference attendees

BY MATT HAMBLEN
SCOTTSDALE, ARIZ.

DATA CENTER managers have embraced server virtualization in the past year across a variety of businesses for nearly every kind of application as a way to reduce oversight and hardware costs, according to IT managers and analysts at Infrastructure Management World.

Several IT managers interviewed at the conference last week said that there is no downside to server virtualization, adding that the trend is firmly implanted in their IT shops. More than half of the 400 attendees at IMW indicated in a survey that they are deploying server virtualization in their shops or plan to do so.

Users interviewed by *Computerworld* said they are using commercial virtualization software from VMware Inc. in Palo Alto, Calif., although some are testing open-source software obtained through XenSource Inc., also in Palo Alto. Open-source options have the potential to cut virtualization costs, but some IT managers were skeptical of them.

"We see virtualization as a trend that's not going away," said Lee Congdon, vice president of corporate technology at Capital One Financial Corp. in McLean, Va. Capital One is midway into a three-year plan to add virtualization software to Windows-based servers, a move that will reduce the number of servers at the company from 1,600 to 1,100, Congdon said. He noted that the company has already seen "substantial" cost savings as a result of the transition.

IT managers said they don't need as many server administrators — or as many server boxes — to run virtual servers.

Congdon said Capital One has used the technology to grow faster as a more full-service bank, moving beyond its image as a credit card company. Financial applications used by newer business units can be added to a collection of servers instead of giving every new application its own server, he added.

Using server virtualization, the time it takes to provision a new server has dropped from eight weeks to just two weeks, Congdon said. That reduction has made it possible to support faster application development cycles — something the bank needs as it grows.

Server virtualization is most often used for routine tasks that aren't vital to companies, according to analysts. But Congdon said that even mission-critical applications can be run on a virtual server.

CONGDON: Provisioning a new server now takes only two weeks.

Capital One is evaluating the use of open-source virtualization, said Congdon, although he would not name any particular software.

Detroit Medical Center, which has nine hospitals in that city, has been using virtualization software for three years and expects to expand beyond the 20 servers now partitioned into four virtual servers apiece, said John Karras, the center's director of technical services. So far, the virtualization process has allowed a 40% increase in servers without requiring more server administrators, he said.

Karras is skeptical of using open-source software in a medical environment. "The problem is that there's nobody to call" if a problem arises, he said. "And if there is somebody to call, it means it's not really open-source and you'll be paying for support."

Server virtualization is also being used in smaller companies. Riester, an advertising firm in Phoenix with 100 employees, has been using a single-server box with three virtual servers running on VMware, said IT director Dan Peterson. He said the cost of VMware has pushed him to consider XenSource, which he is testing now. VMware charges for management software, which Riester is trying to avoid. Peterson also said he doesn't have any reservations about trying open-source in his shop.

IDC estimates that nearly 500,000 server boxes equipped with virtualization software will ship this year, up from just above zero three years ago. By 2009, the number of units shipped is expected to reach 1.2 billion, the research firm said. "I'm shocked by the level of adoption of virtualization," IDC analyst Michelle Bailey told a conference audience.

She said VMware dominates the commercial server virtualization market, competing with Microsoft Corp., SWsoft Inc. and Cassatt Corp. ▸

Selling IT to the CEO: Keep It Simple

SCOTTSDALE, ARIZ.

HOW MANY bullet points in a PowerPoint presentation does it take to kill an audience?

That was a question one CIO asked of the IT leaders at Infrastructure Management World here, who have the somewhat delicate job of selling the CEO on increasing annual spending for IT infrastructure.

Because of its technical nature, IT infrastructure — which includes hardware such as servers for data centers and advanced core networks — can be a tough sell for managers in IT, explained Ogilvy & Mather Worldwide CIO Atefeh Riazi.

Riazi got laughs for her talk lampooning the common practice of "killing" a top-level management audience with a PowerPoint slide presentation that goes on too long or falls short on compelling art, pictures or humor. But she was serious as she explained that IT managers will lose funding if they can't figure out how to effectively communicate the business value of infrastructure spending.

RIAZI: Infrastructure is a tough sell for IT managers.

"Every time we talk to top executives, we talk about where is the growth, where is the profit, where is our competition going to be. . . . But there is zero discussion of infrastructure," Riazi said. "We lose them if we start talking about MPLS networks."

Fred Modruson, CIO at Accenture Ltd., agreed about the need to avoid technical talk when meeting with business-side executives. "You have to show benefits and costs" behind new infrastructure, he told audience members.

"It's a matter of knowing your audience and of putting things in context," Modruson said in an interview. "If you want to provide MPLS, don't start right off talking about, say, hardware and refresh rates. Instead, start by talking about how telecom costs will go down with MPLS, perhaps. Position IT as a benefit."

– MATT HAMBLEN

_INFRASTRUCTURE LOG
_DAY 18: Everything is frozen. It's our processes. They're inflexible. We can't respond to change.
_Why did we lock ourselves in like this? Brrrr.
_DAY 19: A way out. IBM WebSphere middleware for Business Process Management. It lets us streamline business tasks. We can test our processes before we roll them out and monitor performance once they're deployed, and reuse is easy because it's based on a service oriented architecture.
_Everything's unfrozen now. Wow, it's good to feel my toes again.
IBM
WebSphere
Take the BPM with SOA Assessment at:
IBM.COM/TAKEBACKCONTROL/PROCESS

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GLOBAL DISPATCHES

An International IT News Digest

Nasscom Seeks Court For Cybercrime Cases

DELHI, INDIA

INDIA'S National Association of Software and Service Companies (Nasscom) has asked the government to create a special court to try people accused of cybercrimes and other violations of the country's Information Technology Act.

Sunil Mehta, a vice president at Delhi-based Nasscom, said such a court could speed the trials of suspected cybercriminals. Those trials now drag on for an average of about three years, Mehta said, adding that no one charged with data fraud in India has ever been convicted. A special court, Mehta said, would have judges who are familiar with the technical issues involved in cybercrimes and could bring in amicus curiae to advise the judges.

The Indian government is considering Nasscom's request, according to Mehta. The proposed court is part of a Nasscom effort to strengthen data protection and privacy within India's outsourcing industry.

■ JOHN RIBEIRO, IDG NEWS SERVICE

GLOBAL FACT

6.4%

The annual rate of growth in spending for IT services in Saudi Arabia last year. The total amount spent was about $700 million.

Antitrust Probe of Intel Broadens in Europe

BRUSSELS

THE EUROPEAN Commission has expanded an antitrust probe of Intel Corp. to examine claims that the chip maker paid the largest computer retail chain in Europe not to sell systems containing processors made by rival Advanced Micro Devices Inc.

AMD disclosed in July that it planned to file a complaint with Germany's antitrust office after press reports surfaced that Intel had paid retailer Media Markt not to stock PCs based on AMD's chips.

The EC said last week that it decided to examine the claim because Media Markt operates in multiple countries and because if the allegations are true, they would strengthen the commission's antitrust case against Intel. The antitrust investigation began in 2001 and was ratcheted up last year, when the EC raided Intel's offices in Munich and in Swindon, England.

"The commission is concerned that Intel has been putting pressure on Media Markt not to stock computers that include AMD chips as opposed to Intel chips," EC spokesman Jonathan Todd said last week.

Media Markt, a unit of retailer Metro AG in Dusseldorf, Germany, operates more than 360 consumer electronics stores in 11 European Union countries.

■ PAUL MELLER, IDG NEWS SERVICE

NEC Confirms Talks to Sell Consumer PC Unit

TOKYO

NEC CORP. confirmed this month that it is negotiating a possible sale of its Packard Bell home PC division, although it wouldn't comment on reports that it is discussing a deal with Lap Shun "John" Hui, the founder and former head of eMachines Inc.

The sale of Packard Bell would continue NEC's shift away from the consumer sector. The Tokyo-based company has recently tried to build up its position in telecommunications, saying that it hopes to grab a 10% share of the global communications market.

"NEC is considering an offer, and the process of the sale is under way, but no deal has been completed," NEC spokeswoman Kazuko Andersen said. She declined to identify the potential buyer.

Hui, who sold eMachines to Gateway Inc. in 2004 for $234 million, has been publicly shopping for a PC company in recent weeks. In August, he offered buy the retail arm of Gateway, but the Irvine, Calif.-based company's board rejected the deal that Hui proposed. Hui has yet to make a public statement about Packard Bell. Calls to his investment banking firm, Averil Capital Markets Group Inc., weren't returned.

■ BEN AMES, IDG NEWS SERVICE

Aussie State to Upgrade Police Dispatch System

PARRAMATTA, AUSTRALIA

THE AUSTRALIAN state of New South Wales has awarded a contract worth $14 million Australian ($10.5 million U.S.) to Fujitsu Ltd.'s local subsidiary to replace a decade-old computerized dispatch system used by the state's police force.

The contract calls for Fujitsu Australia Ltd. to provide and install a dispatch system that will be used to manage and record emergency calls, as well as to create maps using real-time displays.

Dave Johnson, a police superintendent who is director of the IT project, said the New South Wales police force is working with Fujitsu "to ensure [that] the system is fully tested and those using it [are] properly trained before we go live." Johnson noted that large IT projects "can be difficult to implement, both technically and from a change management perspective."

North Sydney-based Fujitsu Australia is using Windows-based emergency services software from Gosport, England-based Fortek Computers Ltd. as part of the new system. The system will be linked to other Australian state and federal emergency systems; it's expected to go live in mid-2007.

■ RODNEY GEDDA, COMPUTERWORLD AUSTRALIA

EU, U.S. Face Deadline On Data-Sharing Deal

BRUSSELS

EUROPEAN AND U.S. security officials last week were locked in talks here to hammer out a replacement for an agreement on sharing data about airline passengers that was outlawed by a European court in May and is scheduled to expire at month's end.

As part of the screening of passengers entering the U.S. after the Sept. 11, 2001, terrorist attacks, the EU agreed in 2003 to let airlines hand over 34 pieces of data about European citizens to U.S. immigration officials without being in violation of Europe's strict privacy laws.

But the deal was invalidated in May by the European Court of Justice, which called on the U.S. and the EU to reach a new agreement by Oct. 1. Senior U.S. security officials have demanded an interim accord more far-reaching than the existing one, while the European Parliament is seeking to limit the scope of the agreement.

If a new deal can't be reached, airlines flying from Europe to the U.S. will face a dilemma. If they don't hand over passenger records, U.S. authorities may impose hefty fines or withdraw landing rights. But if they do, passengers may sue them for breaching European data-protection laws.

■ PAUL MELLER, IDG NEWS SERVICE

Compiled by Mike Bucken.

Briefly Noted

HCL Technologies Ltd. in Noida, India, has been chosen by General Electric Co. to set up and operate unspecified development centers for GE in India and China. HCL didn't disclose the value of the three-year contract. It also declined to say what kind of work would be done at the centers. Such facilities often are used to develop software for use internally by companies.

■ JOHN RIBEIRO, IDG NEWS SERVICE

Perot Systems Inc. will open a services delivery center in the Philippines in January to serve its business process outsourcing clients in the U.S. health care market. Plano, Texas-based Perot Systems plans to first set up an office in Manila and later expand outside of the capital, an official said. He wouldn't disclose the amount of the investment but noted that the standard expenditure is about $8,000 (U.S.) per seat.

■ LAWRENCE D. CASIRAYA, COMPUTERWORLD PHILIPPINES

Infineon Technologies AG has opened its first chip plant in Asia, a facility in Kulim, Malaysia, that cost about $1 billion (U.S.) to build. The plant will produce power and logic chips used in automotive and industrial applications, Infineon said last week. The facility will eventually employ 1,700 people, according to the Munich-based company.

■ SUMNER LEMON, IDG NEWS SERVICE

South Korea has agreed to participate in the European Union's Galileo satellite navigation system. South Korea will work with the EU on scientific research and training, market development, standards, certifications and regulatory measures. The EU-backed system was developed to support commercial applications. The first Galileo satellite, Giove-A, was launched last December.

■ MARTYN WILLIAMS, IDG NEWS SERVICE

Elpida Memory Inc. said CEO Yukio Sakamoto held talks with Taiwanese officials earlier this month to discuss possible incentives for building a chip factory in Taiwan. Tokyo-based Elpida has been considering an investment in China, Japan, Singapore or Taiwan. A decision on the facility's site has yet to be made, a company spokeswoman said.

■ DAN NYSTEDT, IDG NEWS SERVICE

_INFRASTRUCTURE LOG
_DAY 12: No one can get real-time answers. No one can collaborate. Unmanaged public IM is a security nightmare.
_Gil brought in a "collaboration accelerator." I said it looks like a cannon. He said I had a small mind.
_DAY 14: The answer: IBM Lotus® Sametime® 7.5. It's not just IM and Web conferencing, it's an affordable platform for running the business in real time. It's encrypted. Has tons of features like VoIP and location awareness. And it works seamlessly with leading public IM networks. Everyone has real-time answers now.
_We've even recovered most of our employees.
IBM.
Lotus.
Download the Lotus Sametime 7.5 demo at:
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Continued from page 1

HP Leak

actions to monitor reporters was totally inexcusable."

If any DOJ probe results in a large-scale investigation or "very messy public hearings" by congressional subcommittees, it could "impact the standing of the company with its customers over time," King said. "It will depend on how long it goes on."

Observers are hoping that Hurd will discuss the issue in his speech at this week's HP Technology Forum in Houston. The company is expecting some 7,000 attendees.

Business as Usual

At this point, said Jose Martinez, director of information systems for the Pacific Maritime Association, the turmoil "doesn't bother me at all. It's more of an internal, administrative issue" for HP. The San Francisco-based labor association uses HP servers and storage-area network systems.

Robert Schramm, vice president of operations in the Lyndhurst, N.J., office of Polo Ralph Lauren Corp., agreed that Dunn "overstepped her bounds, probably, and HP probably needed to get rid of her." However, while "it makes for good headlines, I doubt it will have any effect on the IT community," he added during *Computerworld*'s Infrastructure Management World event in Scottsdale, Ariz., last week.

> "I think a lot of this turmoil has affected the way they provide service, and I think it's distracted them."
>
> STEVE DUNLAP, MANAGER OF NETWORK ENGINEERING, ALASKA USA FEDERAL CREDIT UNION

> "The intrigue over Dunn's departure is just about as important to me as which celebrity is wearing a new dress."
>
> GEOFF CARAS, VICE PRESIDENT OF SYSTEM INFRASTRUCTURE, SHOP.COM

James Hull, director of IT network and data center services for the Harris County Hospital District in Houston, agreed with that take. "When a change in a chairman or a CEO of a vendor happens, it usually doesn't mean that much to us," Hull said.

Observers hope MARK HURD will address the boardroom flap at the HP Technology Forum.

Added Geoff Caras, vice president of system infrastructure at Shop.com in Monterey, Calif., "The intrigue over Dunn's departure is just about as important to me as which celebrity is wearing a new dress." Shop.com uses HP hardware and some HP software and has found the technology strong — although HP's service could use some improvement, Caras added.

The HP board's problems won't affect purchasing decisions at Rackspace Managed Hosting Ltd. in San Antonio, "because our buying decisions are based on the availability of the product, the price of the product and reliability of the product," said principal engineer Bob Mielke. "I certainly hope it won't be a distraction."

PATRICIA DUNN had been under pressure to resign.

Gordon Haff, an analyst at Illuminata Inc. in Nashua, N.H., said that by removing Dunn as chairman and giving that post to Hurd, HP hopes it can quiet the scandal and head off future related legal problems.

"That's certainly what they're hoping," Haff said. "They're putting on a full-court press to get everything under their control. From Dunn's statements and others, it's pretty clear to me that people [at HP] don't necessarily feel that they did anything wrong."

Computerworld's *Matt Hamblen and Patrick Thibodeau contributed to this story.*

HP Officials Could Face Calif. Charges

THE CALIFORNIA attorney general's office last week said it may indict people within and outside of Hewlett-Packard for their alleged roles in a boardroom scandal that forced Chairman Patricia Dunn to step down last week.

Thomas Dressler, a spokesman for California Attorney General Bill Lockyer, said the state is continuing to investigate the actions taken by HP officials and the private investigators they hired to find out which board members were leaking corporate information to reporters.

In addition, a spokeswoman for Massachusetts Attorney General Tom Reilly said Lockyer's office is working with Massachusetts officials on the investigation.

Dressler declined to disclose why the investigation has spread to Massachusetts or what other companies might be included in the probe. "I'm not going to comment. It's not prudent for prosecutors to mention names before bringing charges," Dressler said.

The spokeswoman for Reilly also declined to explain why Massachusetts is involved in the investigation.

HP has acknowledged that it hired private investigators to ferret out the sources of the leaks. The investigators obtained phone records of nine journalists using pretexting, which involves someone posing as a phone company customer to get access to that person's records, HP said.

In a statement, Dunn apologized for the use of inappropriate investigative techniques and said that those techniques "went beyond what we understood them to be."

– BEN AMES, IDG NEWS SERVICE

Lack of Leadership Hampers Cybersecurity Efforts, Say Critics

BY JAIKUMAR VIJAYAN

The U.S. Department of Homeland Security is ill prepared to coordinate a public- and private-sector response to a cyberattack against the nation's critical infrastructure because of a lack of leadership on cybersecurity matters, lawmakers and security officials said last week.

In response, DHS Undersecretary for Preparedness George Foresman said the agency was in the final stages of reviewing the credentials of a "very qualified" individual for the position of assistant secretary in charge of cybersecurity affairs at the agency.

"This has been, and remains, a top priority" at the DHS, Foresman said during a hearing last Wednesday on cybersecurity for the national infrastructure. The hearing was conducted by the House Commerce Committee's Subcommittee on Telecommunications and the Internet.

Impact of Vacancy

DHS Secretary Michael Chertoff announced the creation of the new position of assistant secretary for cybersecurity and telecommunications at the DHS last October. The move was seen as recognition of the need to elevate the importance of cybersecurity issues within the agency.

The failure to appoint an assistant secretary almost a year after the position was created conveys the DHS's "lack of appreciation" of the nation's cyberthreats, Congressman John Dingell (D-Mich.) said at the hearing.

Reacting to similar concerns that were raised by Rep. Jay Inslee (D-Wash.), Foresman noted that the absence of an assistant secretary had not stopped the DHS from moving forward with its response planning.

Criticism of the DHS at the hearing was not limited to its failure to appoint an assistant secretary, however.

David Powner, director of IT management issues at the Government Accountability Office, noted that the DHS had thus far failed to establish a comprehensive plan for responding to cyberthreats against critical infrastructure. Criminal groups, foreign intelligence services and terrorists all have the ability to launch disruptive cyber and physical attacks, said Powner.

Also hampering the DHS's efforts to establish a recovery plan is a lack of agreement over what the agency's role should be when a disruption does take place and when it should get involved, said Powner.

The private sector has been reluctant to share information with the DHS because "it doesn't see a value in sharing" and has a lack of trust in the department's leadership, he said.

"The bottom line is that without an individual at a senior level in charge of cybersecurity at the DHS, the vision, priorities and programs are not coming together," said Paul Kurtz, executive director of the Cyber Security Industry Alliance in Arlington, Va., who testified at the hearing.

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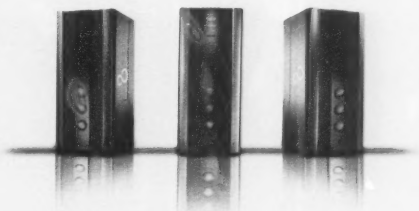

FUJITSU

THE POSSIBILITIES ARE INFINITE

intel Itanium 2 inside

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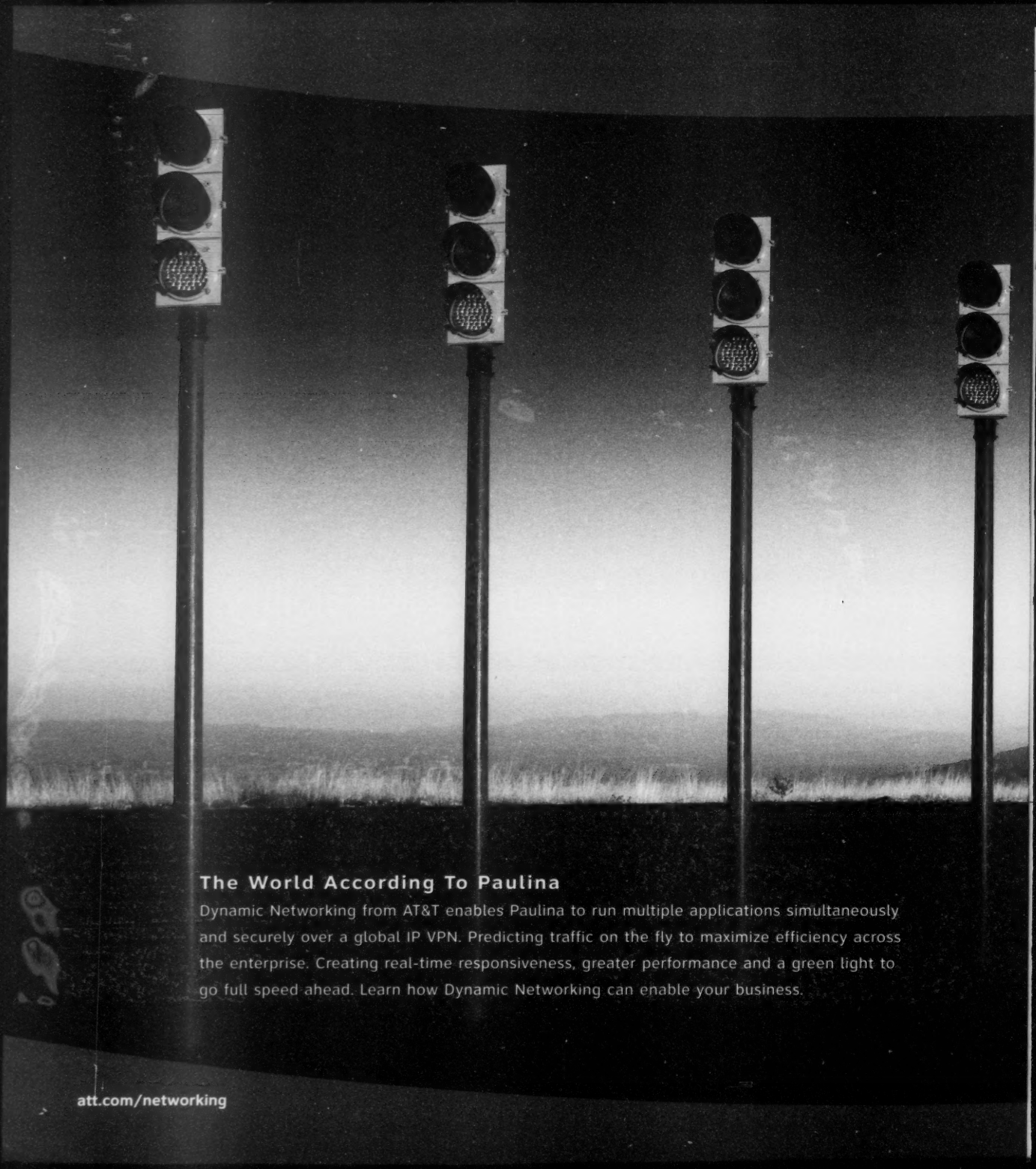
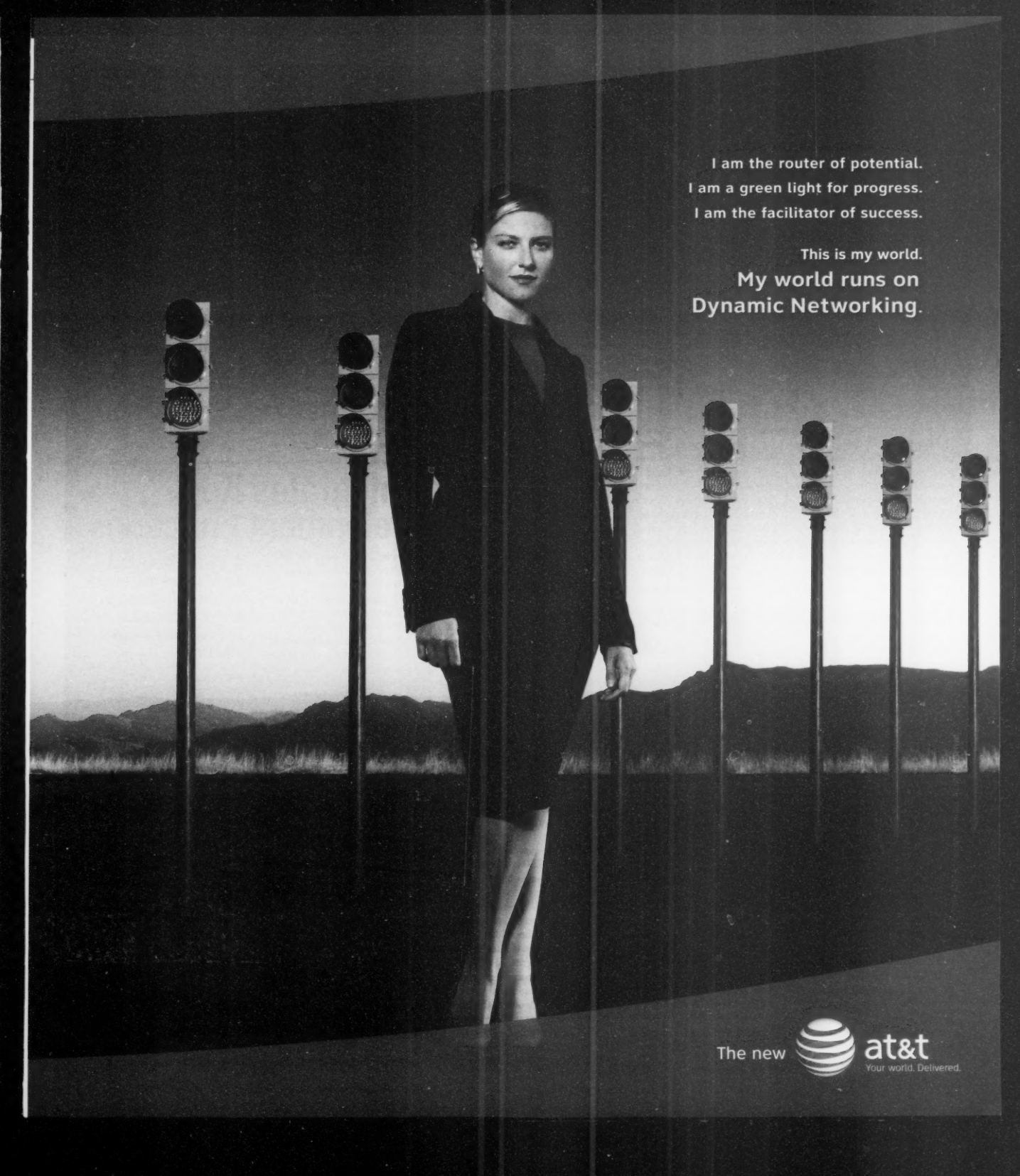

The World According To Paulina
Dynamic Networking from AT&T enables Paulina to run multiple applications simultaneously and securely over a global IP VPN. Predicting traffic on the fly to maximize efficiency across the enterprise. Creating real-time responsiveness, greater performance and a green light to go full speed ahead. Learn how Dynamic Networking can enable your business.
att.com/networking


I am the router of potential.
I am a green light for progress.
I am the facilitator of success.
This is my world.
My world runs on
Dynamic Networking.
The new
at&t
Your world. Delivered.

Oracle Exec Updates Plan for Fusion Apps

BY MARC L. SONGINI

As Oracle Corp.'s senior vice president of applications development, **John Wookey** *oversees development of the company's business application lines — including the Oracle E-Business Suite, PeopleSoft Enterprise and J.D. Edwards' EnterpriseOne and World applications. Wookey is also charged with crafting Oracle's next-generation applications, called Fusion. He discussed the state of both last month with* Computerworld.

Does the Applications Unlimited program, which offers indefinite support for Oracle's legacy systems, indicate less emphasis on Fusion? When we laid out the Applications Unlimited branding, some had the reaction that we were going soft on Fusion. We've talked from the start that we'd offer support [for acquired applications] until 2013. We said we'll deliver compelling applications in 2008 with next-generation [Fusion] technology. We're doing that. But the customers have had more concern for the products over the next year than what they'll be choosing in 2008. They had very immediate needs that we made sure we addressed in the current product lines.

How will you get customers to move to Fusion? We believe that the customer, if given a choice, will end up moving to the new technology. From our standpoint, it's a pull demand vs. a push demand. You don't see other vendors doing this today. Traditionally in the industry, there's a forced march. Look at SAP today — it's at the point where mySAP ERP is the only product to go forward with. To do this, we expect R/3 customers will have to reimplement SAP technology, going from one architecture to a different one in mySAP ERP and doing a relicensing. For a SAP R/3 customer, that's pretty dramatic.

What was the role of PeopleSoft and Siebel in the development of Fusion? After the acquisition of PeopleSoft, we talked to [PeopleSoft officials] about their plans, and they said they had a next generation of PeopleTools [development technology]. It was proprietary, and they had a ton of work to do to move it to .Net or Java 2 Enterprise Edition standards. We were doing the same thing. Siebel had Project Nexus and was trying to build J2EE tools that would be evolved beyond their own proprietary tool set. If you laid out [next-generation] architectural diagrams — Siebel or Oracle or PeopleSoft — if you got the colors consistent, they were the same diagrams.

How is Fusion different from the offerings of competitors? If you take a look at any application solution today with Oracle or SAP, what the vendor delivers to the marketplace is based on a combination of things. There are things you can play with and things nobody gets to touch. PeopleSoft had stuff not accessible; Siebel had code and engine routines that neither customers nor channel partners could touch. We had Oracle Forms, and SAP has ABAP [proprietary source code]. All had proprietary technologies that made it difficult to make changes in the system.

We're delivering the first standards-based, commercially available applications all written in Java and XML. ▸

IBM Unveils Update to Sametime

BY ELIZABETH MONTALBANO AND JUAN CARLOS PEREZ

IBM last week unveiled a new version of its Lotus Sametime instant messaging and collaboration software, which is aimed at corporate users.

Version 7.5 of the software adds voice-over-IP (VoIP) capabilities, integration with instant messaging clients from America Online Inc., Yahoo Inc. and Google Inc., and client-side support for the Linux and Mac OS X 10.4 operating systems.

About 30 vendors, including Cisco Systems Inc. and Dassault Systemes, have used the new version's support for the open-source Eclipse development framework to build applications on top of Sametime.

Ken Bisconti, vice president of Lotus software products at IBM, said the third-party products are using the updated version's ability to link users in real time.

Sametime 7.5 is priced at $55 per user and is available now.

IBM officials also outlined early plans for the next version of Sametime, which is due to be unveiled next year.

Adam Gartenberg, manager for real-time collaboration at IBM, said an application programming interface may be added to let developers embed audio/videoconferencing windows from other providers into Sametime's webconference interface.

Instant messaging and real-time collaboration systems have traditionally been proprietary, so attempts to open up these systems to a broader IT universe are somewhat unusual, said Matt Brown, an analyst at Forrester Research Inc. in Cambridge, Mass.

"IBM is certainly pushing this idea of interoperability and [making] real-time collaboration a platform component that can be consumed by other applications," he said. ▸

Montalbano and Perez are reporters for the IDG News Service.

Serena Tool Integrates Key Software Development Functions

BY HEATHER HAVENSTEIN

Serena Software Inc. last week unveiled a tool that combines requirements, change and configuration, and build management capabilities into a single offering.

The new Dimensions 10 tool can provide IT development managers with better visibility into development projects and help them control the various phases of such projects, said Matt DiMaria, vice president of worldwide marketing at the San Mateo, Calif.-based company.

Jim Hendricks, manager of quality and process improvement at AutoZone Inc., said his company plans to start testing the capabilities of the Dimensions 10 software by the end of this month. The offering is expected to be in production at the Memphis-based automotive parts retailer by March 2007, he said.

Hendricks said he expects that the integration of requirements management, change management and process-control capabilities in the tool set will improve the accuracy and efficiency of software development at AutoZone. The company now uses paper or e-mail for its requirements management efforts, he said.

"All these disciplines don't work in their own separate worlds — they all have to interoperate to get efficiency," Hendricks said. "It will allow developers to see exactly what they are coding for instead of using e-mail or paper."

> **"All these disciplines don't work in their own separate worlds – they all have to interoperate to get efficiency.**
>
> **JIM HENDRICKS,** MANAGER OF QUALITY AND PROCESS IMPROVEMENT, AUTOZONE INC.

'Cradle to Grave' Views

In addition, the company's auditors are pushing the AutoZone IT development operation to show "cradle to grave" views of changes made during a project, according to Hendricks. Auditors want to know whether applications meet the original requirements and how that was verified, he said.

DiMaria said the Dimensions software should help companies deal with the demands of regulatory compliance and outsourcing, as well as provide users with more tools at lower costs. He noted that the Dimensions 10 process is "traceable and auditable."

The product is designed to work with existing tools by supporting the Application Lifecycle Framework of the Eclipse.org open-source community and Microsoft Corp.'s Visual Studio .Net, according to DiMaria.

Dimensions 10 also includes a role-based dashboard to allow users to analyze performance metrics for projects across each development stage.

Carey Schwaber, an analyst at Cambridge, Mass.-based Forrester Research Inc., said that the integrated requirements management and change management tools reduce the complexity normally encountered by developers when installing, using and maintaining software development tools.

"[Serena's] strategy is to provide better integration of these tools, which gets you better visibility by consolidating repositories," she said. ▸

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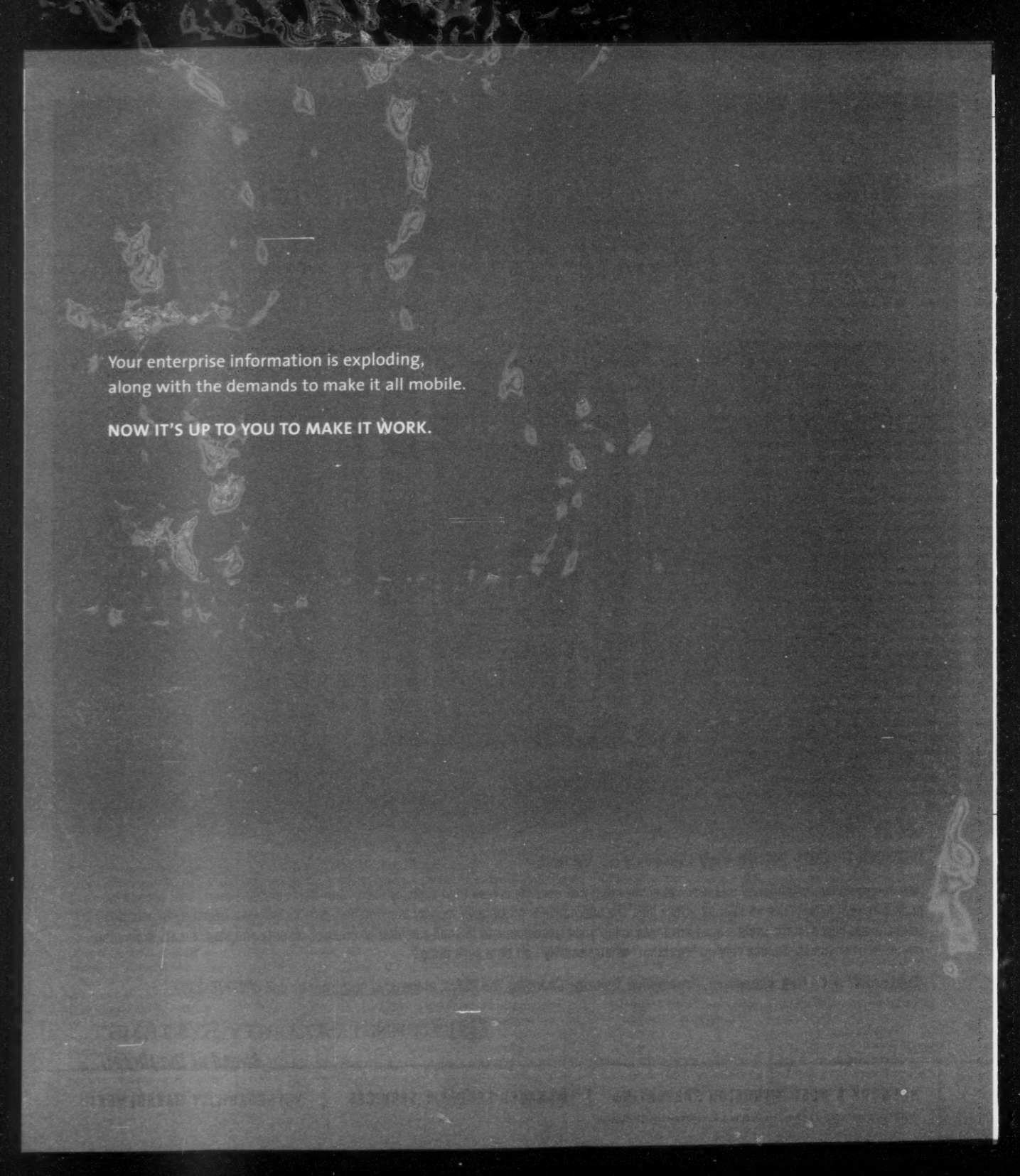
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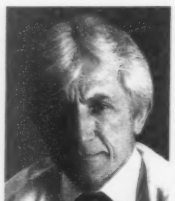
DON TENNANT

HP's Opportunity

WHEN HP Technology Forum 2005 wrapped up last October, the people at Hewlett-Packard who made it happen had to have been some of the most relieved individuals on the planet. It's hard to imagine how any event could have had worse karma.



DON TENNANT is editor in chief of Computerworld. Contact him at don_tennant@computerworld.com.

As you may recall, last year's HP Technology Forum came on the heels of the sudden cancellation in July of the HP World conference sponsored by the Interex HP user group, and the abrupt collapse of Interex itself. A week later, HP announced a restructuring that would leave it with 10% less employees and abolish the customer solutions group — the group responsible for selling to corporate and government users.

If there was ever an occasion when HP's users needed to hear some reassurance and get a sense of direction from newly appointed CEO Mark Hurd, it was Technology Forum 2005, which was scheduled for September in New Orleans. Astonishingly, however, HP said that Hurd would be unable to attend the event because of a scheduling conflict. That rubbed a lot of users the wrong way, especially considering that Hurd had managed to arrange his schedule to accommodate a keynote slot at the OracleWorld user conference the week after his own users were to gather.

Hurd and/or his handlers eventually came to his and/or their senses, and suddenly it was announced that Hurd was going to be at the Technology Forum after all. Then, right when it was looking like the damage had been controlled, just days before the conference was to begin, Hurricane Katrina hit. New Orleans was largely destroyed, and the hapless folks at HP found themselves scrambling to manage the Herculean task of moving the event to Orlando, where it was held the following month.

"At least we know that next year, pulling it off won't be as tough," the HPers must have thought when the event mercifully concluded. "How could it be any more of a pain?"

Well, for one thing, a bombshell about an embarrassing HP boardroom scandal and legal flap could drop a week and a half before the conference.

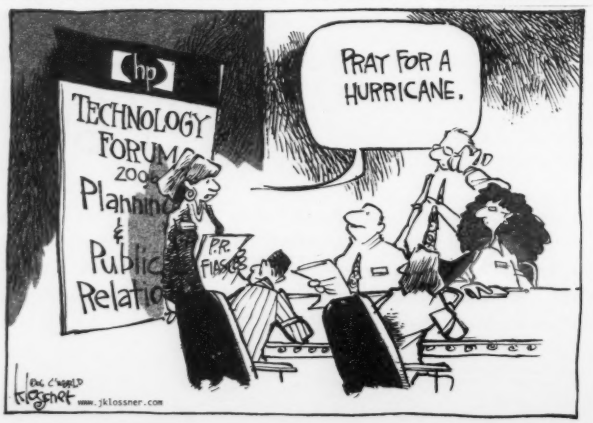
As HP Technology Forum 2006 gets under way in Houston today, there's no question what will be top of mind among the attendees. They're going to be legitimately concerned about the degree to which the HP leak probe fiasco is going to take the company's eye off the customer ball. And they deserve to have the matter addressed openly and thoroughly by HP's top executives — especially by Hurd.

(Full disclosure: HP is the sole sponsor of a one-day, invitation-only *Computerworld* IT Executive Summit that's being held in Houston concurrently with the HP Technology Forum. The agendas of the two events are complementary, but the events are distinct, and *Computerworld* was not involved in organizing the HP Technology Forum.)

If Hurd and his executive team at the Technology Forum play their cards right, what is unquestionably a horrific PR nightmare will be seen as an opportunity to demonstrate the sort of transparency and courage that seems to be so desperately lacking of late in corporate America. Rather than being swept in and out of carefully choreographed and controlled engagements, Hurd will make himself directly accessible to as many users as he possibly can and take full advantage of the media to reach HP users all over the world who won't have that face-to-face opportunity.

And if he doesn't? HP Technology Forum 2007 may well have far fewer attendees for him to worry about avoiding.

Don Tennant



VIRGINIA ROBBINS

Cooking Up Great IT

ONE OF MY favorite TV shows is *Ramsay's Kitchen Nightmares* on BBC America. Thanks to TiVo and a foggy Sunday afternoon, I ended up watching four episodes back to back. For those of you who aren't watchers of celebrity chefs, Ramsay is Gordon Ramsay, one of England's star chefs. In *Kitchen Nightmares*, he consults with the owners, staff and chef of a failing restaurant, assesses their mistakes and, in less than one week, attempts to get them back on track to success.

Owning and operating a restaurant and running an IT department couldn't be more different, right? Most corporate IT departments' customers are captive. There are standards that need to be enforced. And large projects may need to be planned months, if not years, in advance. The restaurant equivalent would be to offer only two choices for a lunch that is going to be served in three months. And it will be served exactly at noon, whether the customer still wants it or not.

VIRGINIA ROBBINS is a former CIO and is now chief operations officer at North Bay Bancorp in Napa, Calif. Contact her at vrobbins@sbcglobal.net.

So why see parallels between a restaurant and an IT department? Because both are service businesses; each attempts to meet its customers' demands in a way that generates a reasonable amount of profit in a highly competitive business where customers do have choices.

That makes this question relevant: How does Ramsay turn around these restaurants? The advantage of watching four episodes back-to-back is that his formula becomes clear quickly. He starts with communication — between the boss and the entire staff, between the kitchen and the host, and between the kitchen and the wait staff. He watches for unresolved conflicts, whether it's staffers who can't tell their boss that customers aren't

happy or a boss who isn't assertive enough. He forces people to talk to one another and to clearly delineate their respective responsibilities.

In one episode, Ramsay had a rather mousy older woman practice talking to pictures of her employees before she told them in person exactly how to perform. In another, he used an egg as a communication device; staff members couldn't interrupt as long as the speaker held the egg.

Ramsay uses what my mother would call "colorful" language. On BBC America, about a quarter of what he says is bleeped out. He calls his word choice "kitchen language" and declares that it's an effective device for him. Of all of his methods to improve communication, it's the only one I wouldn't use.

Once Ramsay has gotten everyone talking to everyone else, he tackles marketing, product delivery and pricing. In my personal marathon of episodes, his message was to update menus, keep supply (raw food) costs low, raise prices to market levels and make sure that the product that's delivered is what the diner requested, not what suits the staff. In the IT world, this translates into getting rid of older standards, dealing with local companies to improve service, keeping interdepartmental charges reasonable and making sure that your products suit your customers' needs.

The last step in Ramsay's quick-turnaround process is to require management and staff to eat in the restaurant on their days off. He demands that they have the same experience that their customers have. In the IT department, that means that if the average age of equipment in your company is 20 months old, then you get a 20-month-old PC; if the standard application is Office 2000, then you get Office 2000. Whenever I've required this of technology staff, I've heard a ton of complaints: "I know how to use a computer, so I should get the newest one," and, "We in IT need to test the new products to see if they work."

Yes, yes, yes. But who's going to fight for your customers if you don't understand every day how they feel? How quickly do you think you'd reduce the average age of the equipment if you had to suffer along with all the other employees? That age would be down to 12 months in a flash, I think.

I don't mean to say that IT should be last on the list; you need to fight for your staff, too. But meeting your customers' needs has to be first. As Ramsay says, if you don't know what your food tastes like, you're not cooking. And if you don't know what your services feel like, you're not doing great IT.

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READERS' LETTERS

Believers in Agility Say Simplicity Works

MICHAEL HUGOS keeps hitting the nail on the head with his IT agility columns ["Agility Lessons Learned," Opinion, Aug. 7]. I especially agree with his third point, "Empower people, not computers, to handle exceptions." Indeed, we should be able to handily address the "remnant" of the 80/20 rule right from the start. Then, by using readily available tools such as Six Sigma, we can work on eliminating the exceptions instead of trying to accommodate every errant business process component with our systems (which seems right but facilitates continued waste and inefficiency).

Tom Uhase
Senior applications analyst, Orrville, Ohio

THE ARTICLE mirrors my experience working in IT 100%. We usually let complexity overwhelm us – especially in big companies.

Dave Cohen
Global business services innovation, Procter & Gamble, Cincinnati

THANKS FOR that nice, concise article. To be so presumptuous as to actually answer the final question, I do believe it is that simple. As much as technology changes at a rapid pace, people don't. Project managers still use the concepts Gantt taught about 100 years ago. People still do best with quick, rapid changes. IT projects still involve people processes, so the basics really don't change.

John E. Columbus
Owner, Columbus Consulting Group, New Hope, Minn., detanyek@hotmail.com

Silicon Pigeons

C.J. KELLY'S fascination with destroying hard disks and other pieces of computer equipment with a hammer and setting them on fire isn't really all that ridiculous ["No Data Left Behind: Dealing With Disposal," Security Manager's Journal, July 31]. We've been destroying disks and old equipment for a long time using 12-gauge shotguns and AK-47s at 20 feet. It really works – and it helps us hone our shooting skills to boot.

Pete Geiger
Ince Distributing, Austin

Getting Beyond 'Don't Call Us . . .'

IN HER article "Can't Find a Job? Here's Why . . ." [*Computerworld.com*, July 24] Katherine Spencer Lee makes the assumption that the unfortunate candidate in question got an interview. I am of the opinion that if I get the interview, I can get the job. What no one chooses to explain, in detail, is how to get the interview.

I realize that the hiring process is akin to weather forecasting, but I still look to Robert Half and other headhunting firms for insight into the process. I expect professionals like Spencer Lee to have their fingers on the pulse of the hiring managers and to pass their insights on to me so that I can get the telephone to ring.

Marshall Lewis
Network administrator, Washington

BSA, SPA Are Just Software Bullies

I'M SURE the Business Software Alliance is very proud of itself for getting so much money from so many companies for illegally running software – so proud that it issued a press release, complete with the companies' names and settlement amounts ["BSA Collects Over $2M in Settlements From U.S. Companies," *Computerworld.com*, July 25].

But there is another side to trade groups like the BSA and the Software Publishers Association. My company was the subject of an investigation by the SPA – it actually filed suit, claiming that we were infringing on licenses of three products (PageMaker, Symantec Utilities and CorelDraw).

The suit was completely without merit. I personally conducted the software audit in my company (an easy thing in a company of only around 200 people). What I found was that we were in compliance on one product (two CorelDraw licenses, two installed copies), we were overly compliant on another (10 Symantec licenses, only five actually in use), and PageMaker was used in compliance with a monitoring tool that made it impossible to run more licenses than we had purchased.

To me, the SPA's actions were nothing but intimidation and an act of malicious prosecution.

Brian Youngerman
PC senior help desk technician, Philadelphia, brian@sportsbusiness.com

The DOS Era Is Drawing to a Close

VISTA IS the last of the "old-school" operating systems ["Windows Vista Trouble Spots Improve in Interim Beta Build 5472," *Computerworld.com*, July 19]. I would suggest that Bill Gates' promise of "upward compatibility" is no longer tenable. Think of the Windows architecture as an inverted pyramid, with DOS at the bottom and all the versions of Windows perched on top. No wonder Microsoft needs 26,000 programmers but is still more than three years late with Vista, with a ship date that's still not certain.

What is certain is that it may not be possible for the effort to continue beyond Vista without major redesigns. It's simply not possible – the pyramid structure will eventually collapse upon itself. Which raises the question: What's next?

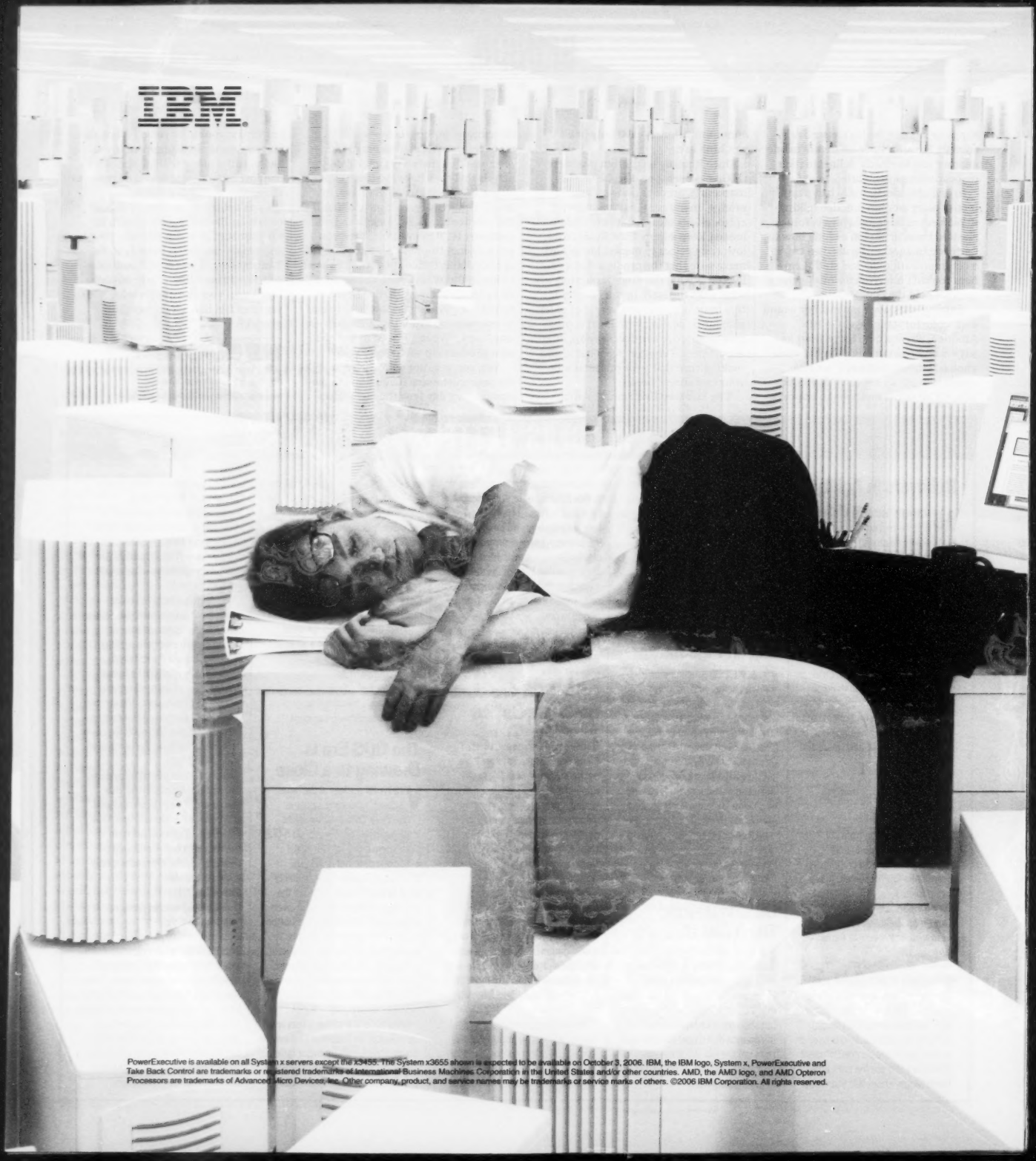
The departure of Gates from Microsoft, which is coinciding with deployment of Vista, gives us a hint at the answer: The old promise of upward compatibility will end with Vista.

Microsoft is now at the crossroads: It will have to build ever-more-complex operating systems, or start over with a modern system at the expense of the installed base. The decision will be forced by economics. Costs will expand exponentially to support the current Windows philosophy. The departure of Gates will give Microsoft the cover necessary to market the betrayal of the installed base.

All of the other operating systems that were developed in the '80s have fallen; they've been replaced with updated versions of one: Unix. After Vista, Microsoft will have to join the revolution. Continued dependence on the old model simply is not sustainable.

James R. Earl
Owner, Solutions in Design, Marshall, Mich.

COMPUTERWORLD welcomes comments from its readers. Letters will be edited for brevity and clarity. They should be addressed to Jamie Eckle, letters editor, Computerworld, PO Box 9171, 1 Speen Street, Framingham, Mass. 01701. Fax: (508) 879-4843. E-mail: letters@computerworld.com. Include an address and phone number for immediate verification.



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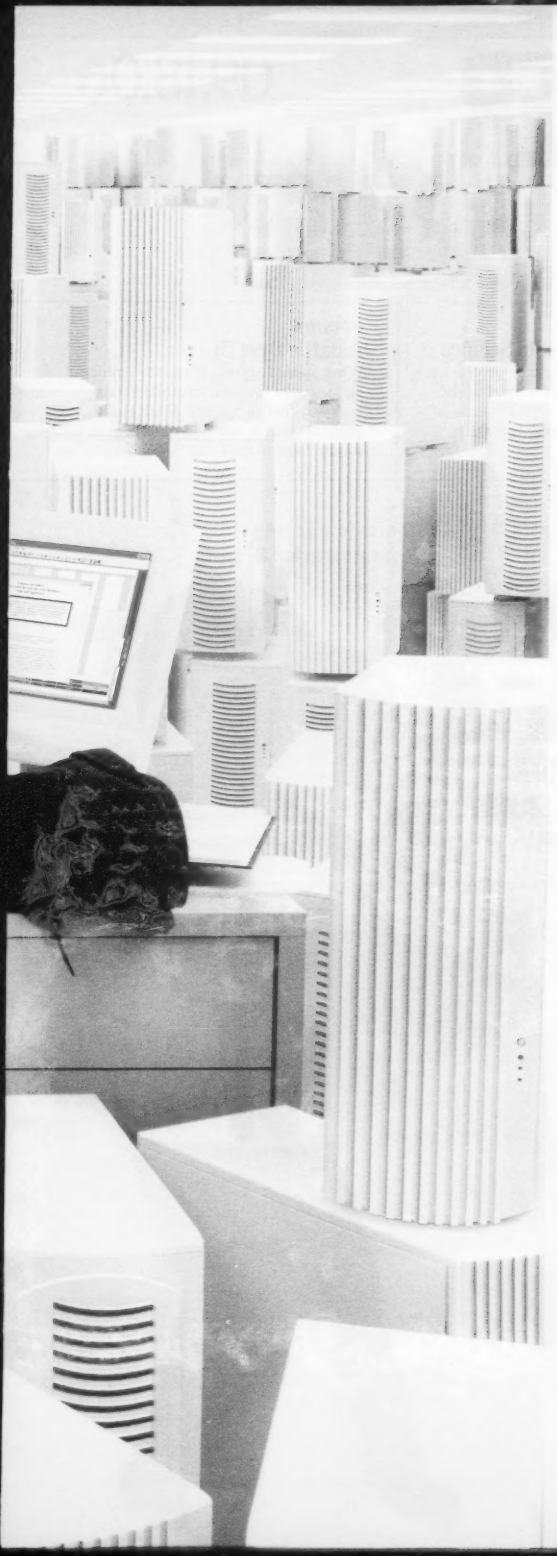


AMD 64 Opteron

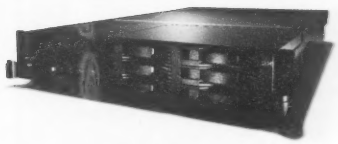
_INFRASTRUCTURE LOG

_DAY 28: These slow, inefficient boxes don't have enough power to run my high-end business apps. They can't do anything. Though I guess crashing counts as doing something.

_Need sleep. Will try to dream that I am I.T. King of a distant planet that only produces stupefyingly powerful servers.

_DAY 30: I've taken back control, thanks to the IBM System x™ server with the AMD Opteron™ Processor. It has more power and more efficiency than I ever imagined in a standards-based server. The PowerExecutive™ tool assigns power as needed for each server. It helps optimize our power consumption. Maximize performance. Increase reliability. I can finally sleep in my own bed again.

_I have taken back control. I am Ned, benevolent I.T. King of this...uh, data center.



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Getting Schedules In Sync With Customers
IT Director Robert Fort explains how Virgin Entertainment Group boosted sales by putting products — and store personnel — where customers need them. PAGE 38

SKILLS
When Art Meets Science
Business intelligence professionals are in demand, but the job takes a rare combination of business and technical skills. PAGE 50

OPINION
A Battle Over BI
What should you do if an intelligence agency asks for your customer data to try to find terrorists? Mark Hall suggests that if you don't know, you might want to find out. PAGE 54

EDITOR'S NOTE

WHEN BUSINESS intelligence software made its debut in the early 1990s, its promise was simple: Insightful data on sales, inventory and many other facets of the organization would help executives make better business decisions. And better business decisions in turn would yield cost savings, sales increases or productivity gains.

That's a big promise. So where are we now? For this special report, we set out to find stellar examples of better business decisions through BI. We're calling them "BI home runs." In the following pages, you'll read about 15 organizations that are relying on BI data to make essential decisions.

By looking closely at their company's BI data, executives at Eastern Mountain Sports, for example, saw that one store was selling boatloads of shoe inserts. They called the store manager to find out his winning sales technique and then rolled it out to stores nationwide. The result? A 73% sales uptick in footwear accessories. Emergency Medical Associates is using BI data in a very different — and important — way. Hospital administrators watch patient arrival rates and the types of cases being diagnosed. Armed with that data, emergency departments are able to adjust the number of nurses and available beds and line up specialized care units.

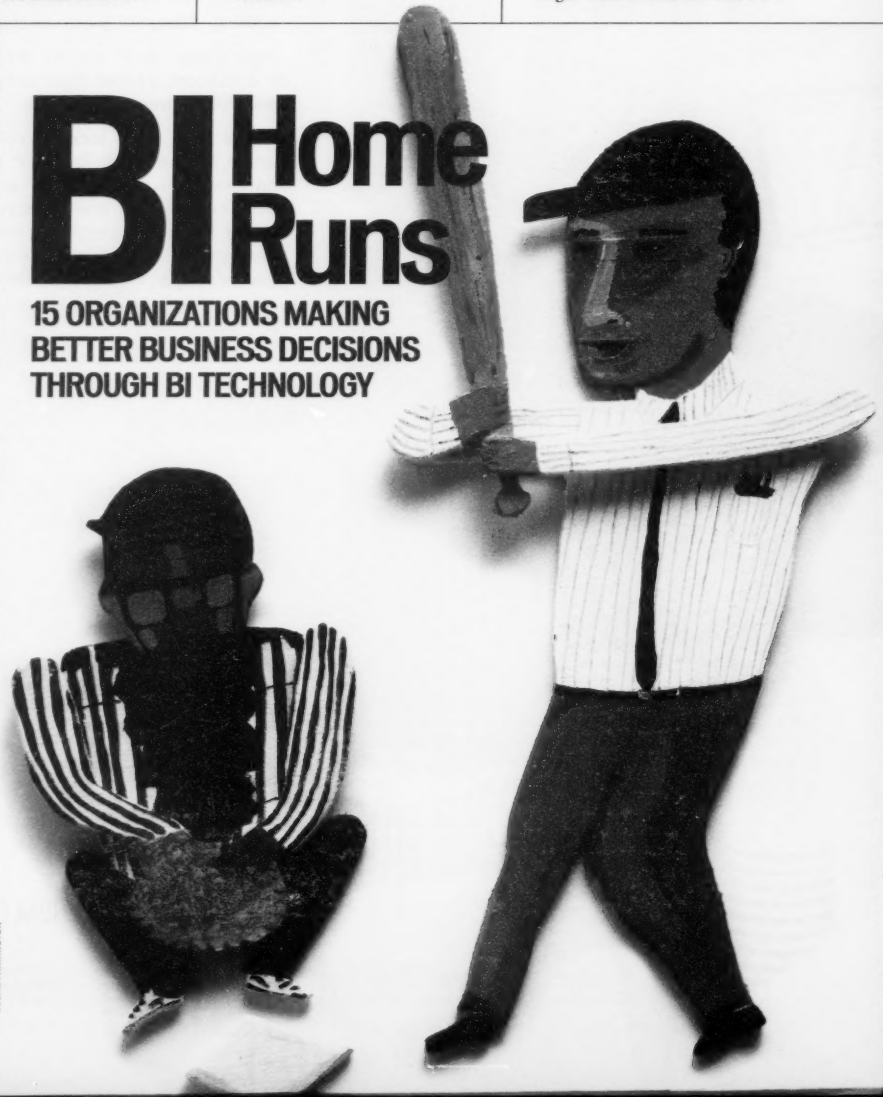
We know you're not ignoring this technology. *Computerworld*'s recent research shows data management and business analytics as your No. 2 project priority in the next three months. So if you don't have a new BI project under way now, chances are you will soon.

And once you've been inspired by the examples from these 15 organizations, we hope you'll hit your own BI project out of the park.

Ellen Fanning is special projects editor at Computerworld. *Contact her at ellen_fanning@computerworld.com.*

BI Home Runs

15 ORGANIZATIONS MAKING BETTER BUSINESS DECISIONS THROUGH BI TECHNOLOGY



SUSAN FARRINGTON

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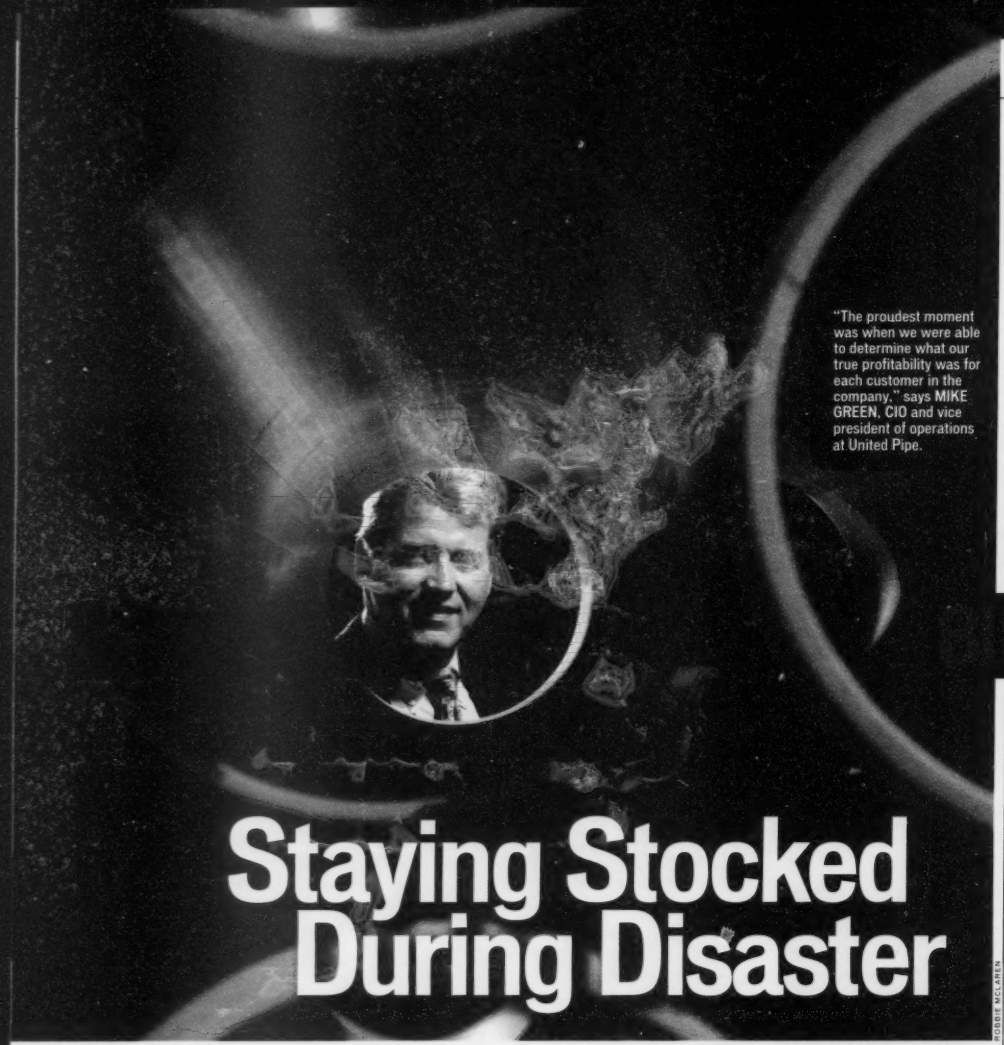

"The proudest moment was when we were able to determine what our true profitability was for each customer in the company," says MIKE GREEN, CIO and vice president of operations at United Pipe.

ROBBIE MCLAREN

Staying Stocked During Disaster

WHEN KATRINA SHUT DOWN ITS SUPPLIERS, THIS DISTRIBUTOR USED BI TO PRIORITIZE ITS NEEDS

BY DREW ROBB

MANY COMPANIES still haven't recovered from last year's hurricanes. United Pipe & Supply Co., however, managed to keep growing despite supply shortages.

The storm shut down chemical plants along the Gulf Coast that produce the plastic resin used for making PVC pipe. For most pipe dealers, that meant coping with soaring prices, if they could even find pipe to buy. United Pipe & Supply, however, found it could use its business intelligence software to maintain its supply lines by ordering only the exact items it needed at a given point in time.

"I did some quick analysis in FileMaker and made some decisions on how much product to purchase, from whom, where to ship it from and how to keep track of that," says Dan Kraxberger, purchasing vice president. He customized a report to generate a critical-items analysis. He then sent the analysis to each vendor, so they knew exactly which items were most needed. The data was continually updated based on vendor feedback. "Where everybody else was asking to just ship them everything, we were saying that if you can just ship us these items, it will work out," Kraxberger says.

As a result, while competitors were running out of stock, United Pipe was able to keep its regular customers supplied. Instead of a disaster, the company had record-setting months during that time period.

United Pipe & Supply has transformed many aspects of its business operations using BI software. The company's pretax profit margin increased from 1.5% in 2003 to 4.7% in 2005, and in the past two years, its income before tax has risen from $2 million to $8.2 million.

"We have raised the bar on the performance of the company," says Mike Green, United Pipe's CIO and vice president of operations. "We are growing the company, but we are also squeezing more to the bottom line through the use of these tools." While he doesn't attribute the improvements solely to the use of BI, he does say that it is "part and parcel of the changes in the company" and that it "could not have been done without these tools."

Green joined the company in 2000 and was charged with the mission of increasing efficiency. His first foray into BI was installing activity-based costing software from ABC Technologies Inc. (since acquired by SAS Institute Inc. in Cary, N.C., and renamed SAS Activity-Based Management, or ABM). He set it up to pull data from the company's AS/400-based hard-goods distribution ERP system from Houston-based Mincron Software Systems and put it into a Microsoft SQL Server data warehouse. The Mincron system has 1,100 data sets going back 15 years.

"The proudest moment was when we were able to determine what our true profitability was for each customer in the company," says Green. Surprisingly, United Pipe's largest customer was costing it money. That discovery led to a re-evaluation of the deals being offered to attract new customers.

In some cases, it was better to forgo some business than try to undercut the competition. Green was also able to determine that some deliveries were costing three to five times the average. "We found pockets of inefficiency that drove changing out our fleet and redeploying personnel," he says.

Green used the SAS ABM system to model each of its local branches, find individual best practices and get other branches to adopt them. While this system did produce valuable insights, it was also expensive to maintain, so United Pipe temporarily mothballed ABM while implementing two smaller systems. The accounting department last year started using OutlookSoft CPM performance management software from OutlookSoft Corp. in Stam-

Continued on page 34

UNITED PIPE & SUPPLY CO.

This privately held wholesale pipe, pump and hardware distributor is based in Portland, Ore., with 31 branches in the Pacific Northwest and $200 million in annual sales.

Ed Kolasinski, president; Cheryl Summers, controller; Mike Green, CIO and vice president of operations

10 employees

By conducting critical-item analyses of its inventory and supplying that data to its suppliers, United Pipe & Supply was able to continue serving its customers in the wake of Hurricane Katrina.

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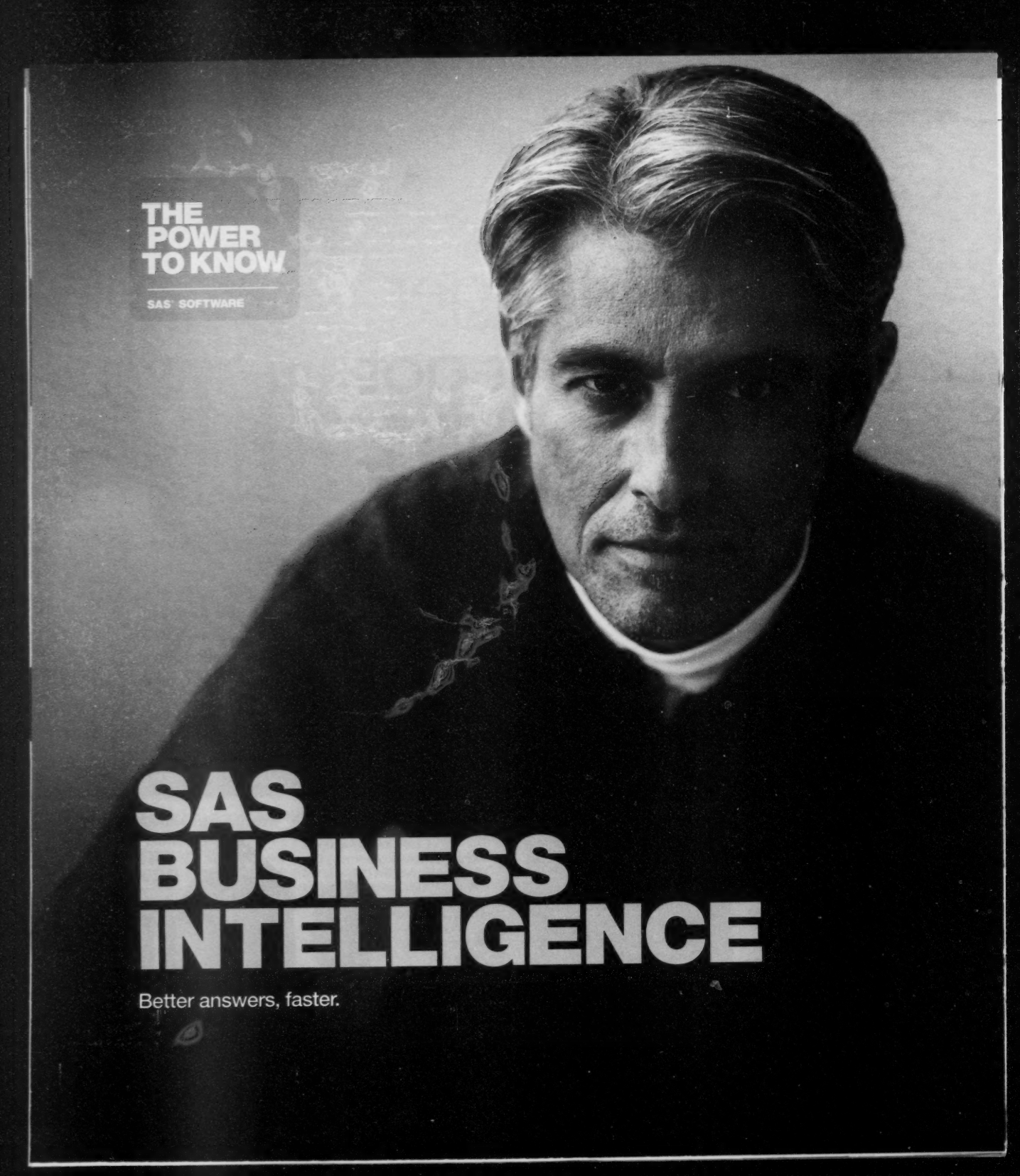
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Continued from page 30

ford, Conn. It allows users to enter and extract data using Microsoft Excel as a front end, rather than having to learn a specialized BI interface. OutlookSoft partner IX Infotech in Irvine, Calif., helped with the implementation.

"They are an AS/400 shop, which is usually difficult to get data out of or run specialized reports without relying on programmers," says Scott Kolka, chief technology officer at IX Infotech. "We brought it all into Excel so they can do a lot of reporting."

IX Infotech started working on the project last September and is now wrapping up the score-carding and BI dashboards, including inventory and order metrics. Previously, the users had to run AS/400 reports and then key the data into Excel. Now the system is able to capture many of the business rules and pump out a daily sales report without any rekeying.

Cheryl Summers, United Pipe's controller, says the system has already enabled the company to move from a centralized, top-down budgeting approach to one where individuals are responsible for generating their own budgets. She says that this has increased financial responsibility throughout the organization. For the first six months of the year, the company was running ahead of its sales budget and within its expense budget. She says that's a big change from when the budgets were "just what upper management believed was going to happen."

"It was really a hands-on participative experience," says Summers. "They own these numbers, they believe in them, and they run their businesses accordingly."

For the purchasing department, Green established an ODBC link between the Mincron ERP system and a lightweight database from FileMaker Inc. in Santa Clara, Calif. "Normally, I use it to do ad hoc queries and analysis of important items that are not available on our mainframe," says Kraxberger.

Says Rebecca Wettemann, an analyst at Nucleus Research Inc. in Wellesley, Mass., "This is a great example of how providing the supply chain with access to better intelligence can not just streamline operations, but also improve competitiveness."

Robb is a Computerworld *contributing writer.*

Tracking Finances On the Rails

WITH ONE BI DASHBOARD, RAILROAD EXECS VIEW FORECAST DATA WITHIN HOURS, RATHER THAN DAYS

BY DREW ROBB

GETTING TRAINS to run on time is simple enough; Mussolini accomplished that back in the 1930s. Getting financial data on time is much harder, but Fort Worth, Texas-based BNSF Railway Co. is managing to do that, too. BNSF is the result of the merger or acquisition of 390 railway companies dating back 150 years. It has 40,000 employees running 6,300 locomotives pulling 220,000 freight cars over 32,000 miles of track.

BNSF's financial reporting system was just as complex as its web of tracks. It was based on more than 2,000 Excel spreadsheets and required extensive manual entry, and not all managers were relying on the same set of numbers. Worse than the complexity, the data they were operating on was at best a month old.

To resolve these issues, BNSF built a business intelligence dashboard called OnTrack Forecasting and Budgeting.

"Requiring all budget managers to use the OnTrack tool for all of their forecasting and planning activities enforces the BI standards," says Bart J. Boudreaux, BNSF's director of BI. "Rather than having multiple numbers in multiple spreadsheets, the numbers now all originate from the same source."

Now, regional managers receive data daily on costs such as payroll, travel and entertainment. They see where there are variances from predicted expenditures and take fast action to bring spending in line.

Based on Essbase from Hyperion Solutions Corp., OnTrack gives managers immediate access to 43 operational metrics and the ability to drill down into the underlying data. Previously, when an analyst entered data, the legacy system would process it overnight before the analyst could see if there were errors in the plan. Now an answer comes back within minutes of loading a plan. It used to take a week to set up the spreadsheets for the next forecast; the new system takes three hours.

"It took us a long time to put together a forecast or any reporting we wanted to do," says Scott Jimison, BNSF's general director of planning. "Now we are able to push a couple buttons and spit something out."

This has translated into two key benefits for BNSF. By working with information in near real time, executives can make operational adjustments midstream, rather than waiting for the end of the month. And by freeing up the time spent gathering and entering data, users can spend more time analyzing it and taking actions that improve operations. According to Jimison, this lets BNSF generate models for target-setting and provides management with more-robust information.

"Configuring spreadsheets as interfaces to centralized data, metrics and business logic helps companies improve the speed and quality of decision-making," says Dan Everett, a BI analyst at Ventana Research Inc.

"When you take that manual effort away, you turn it from finger power into brain power," says Jimison. "Putting the power back in the hands of the user is an important feature."

BNSF RAILWAY CO.

This railway company has 40,000 employees, 220,000 freight cars and $13 billion in annual revenue.

Julie Piggott, Paul Anderson and Paul Bischler, all assistant vice presidents

732 employees and contractors

Having current financial data available on a daily basis lets managers adjust operations in near real time and spend more time on analysis.

Pinpointing Ways to Save

BY MONITORING FUEL USAGE WITH BI, CUSTOMERS CAN CHOOSE THE MOST COST-EFFECTIVE CARS

BY DREW ROBB

IN NOVEMBER 2005, PHH Arval released its PHH InterActive Dashboard, giving customers three years of key performance indicators and expenses, including billing, inventory, fuel purchases, vehicle orders and used-vehicle sales.

With the dashboard, customers of the fleet management company can monitor fuel usage and costs and run what-if scenarios looking at the price of fuel. Using that data, they can identify at a high level where there are opportunities to save money. Next, they drill down into the specific data on different types of vehicles and, in the end, purchase more fuel-efficient ones.

"Our software not only helps drive that decision," says CIO Tim Talbot, "but it will [also] help substantiate the cost savings they achieve as a result and pictorially display it on a graph."

The dashboard was built using Hyperion Solutions Corp.'s Hyperion Performance Suite 8.3 and is embedded in a Web application written in ColdFusion. The data is drawn from an existing Sybase Inc. data warehouse.

"We had to rethink our data structures, as our data warehouse maintains large amounts of detailed data but little summary data," says Talbot. "The structures also needed to allow the application to quickly access and display the information as per the drop-down selected by the user."

The dashboard drastically cuts the time required for generating monthly reports, says Talbot. "When a client sends you an e-mail telling you that a new application you've just launched has saved them two to three days per month of number-crunching — that's pretty cool," he says.

PHH ARVAL, A PHH CORP. COMPANY

The nation's second-largest fleet management company has 1,200 corporate customers and 625,000 vehicles.

CIO Tim Talbot; Greg Corrigan, vice president, business project leader; Jeff Wolf, IT development project manager; Karen Healey, product manager; Jean Bosley, technical business analyst

16 BI employees

Customers save two to three days per month creating reports.

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Ultimately, well-managed IT gives you the visibility and control you need to manage risk, manage costs, improve service and align IT investments. To learn more about how CA and our wide array of partners can help you unify and simplify your IT management, visit **ca.com/unify**.

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ca Transforming IT Management

Highmark vice president SHAWN McNELIS (left), and TOM BRENNAN, director of the Special Investigations Unit

MARK BOLSTER

Detecting a Web of Fraud

UNUSUAL TREATMENT AND BILLING PATTERNS RAISED RED FLAGS, HELPING TO TRAP INSURANCE SCAMMERS

BY JENNIFER McADAMS

A BAND OF chiropractors, with the help of insured "patients," recently bilked several insurance companies out of millions. Now they're facing $7 million in fines and up to seven years' imprisonment. In this major case of insurance fraud, independent Blue Cross Blue Shield provider Highmark Inc. used a new business intelligence application to fight back.

Nearly 50 people insured by Pittsburgh-based Highmark also face prosecution, having allegedly received kickbacks from the chiropractors.

The insurance company's Special Investigations Unit (SIU) spearheaded this successful, far-reaching probe through the use of detailed BI analysis data and reports. BI data helped turn up suspicious treatment and billing patterns. The carrier then tipped off other insurance providers to the falsified claims and collectively filed charges against the chiropractors, one of whom will be sentenced this fall.

HIGHMARK INC.

This $8 billion umbrella insurance company oversees many health, dental and vision plans.

Tom Brennan, director of the Special Investigations Unit; Shawn McNelis, vice president of health care informatics, research and analysis

1,700 employees

2005 savings of $11.5 million by detecting fraud.

Nailing the case had everything to do with Highmark executives' decision to give agents working on cases of potential fraud immediate access to a homegrown BI application. Highmark's FIRST (Financial Investigation Reporting System Tool) system eliminates the need for agents to constantly badger analysts in the health care informatics department for information they need to track patterns of treatment or billing that don't match set parameters.

Indeed, FIRST helped detect unusual patterns among the group of chiropractors. "The practitioner we prosecuted along with two other chiropractors was doing very little, but all three were living very well," says Highmark's SIU director, Tom Brennan.

FIRST hinges on software developed internally that detects irregular patterns using data served up via a BI system built by SAS Institute Inc. Cary, N.C.-based SAS has coupled Highmark's BI functionality with Java interfaces. "We also rely heavily on the use of databases implemented on Teradata servers to help us retrieve, process and store data quickly and efficiently," says Shawn McNelis, Highmark's vice president of health care informatics, research and analysis.

Such systems are necessary to fuel the amount of BI data that investigations require, notes Keith Gile, a principal analyst in Forrester Research Inc.'s information delivery research group. "What's needed is granular data, preferably at the transaction level; a detailed set of rules that establishes the boundaries between what is and what is not fraudulent; and the ability for the BI platform to process all of this data in a short period of time," observes Gile.

In Highmark's case, granular data that includes process codes and detailed patient information is served up in what-if scenarios within seconds. That information is crucial to fraud detection, says Brennan.

"Examples of improvements we've been able to accomplish using BI include identification of an 'impossible day.' This is a scenario in which a practitioner, such as a physical therapist, bills for a lot of hours — so many that it points to the fact that these services could not possibly be rendered in such a short amount of time. There are just not that many hours in a day," Brennan says.

Once the possibility of fraud is detected, insurance companies such as Highmark must build a solid case. "Data quality is always an issue," notes McNelis. The company's data warehouse staff constantly combs information for any problems — taking pressure off SIU agents, since claims are loaded into Highmark's new enterprise data warehouse almost immediately.

The warehouse then spits out BI data that has been summarized and analyzed before it reaches SIU agents. "A request is made by the SIU analyst through an easy-to-use Web interface to extract the data needed for a particular report," says McNelis.

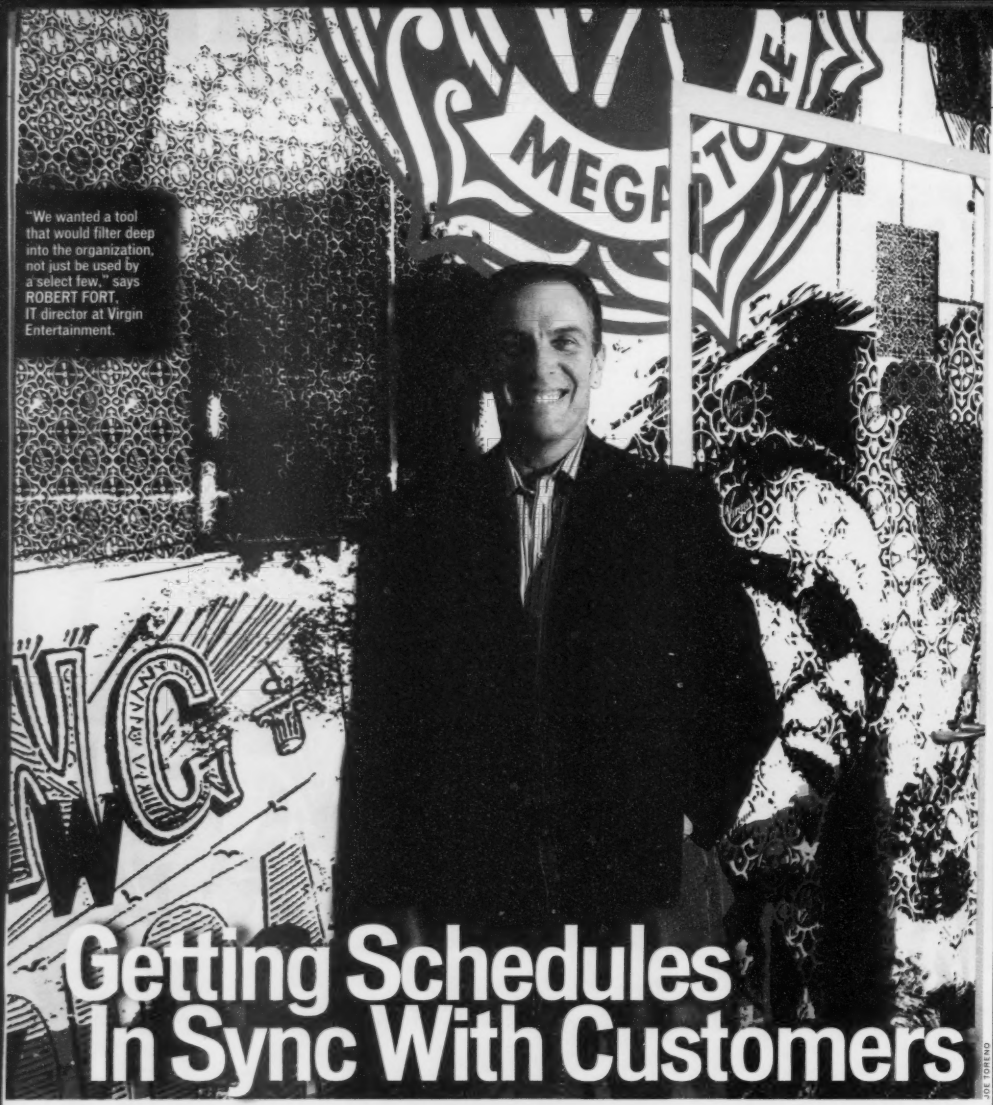
Federal health agencies estimate that 3% to 10% of all insurance claims are fraudulent. "If you use the low figure of 1% and bear in mind that we pay out about $7 billion per year, you quickly realize that we can save a heck of a lot of millions through fraud detection," Brennan says. He estimates that Highmark realizes a substantial return on investment with its BI capabilities.

Yet the insurer plans to become even more aggressive in the face of escalating fraud. Currently in development is a system to detect insurance abuse earlier.

"Once our new models are built, we will be able to do preadjudication work and identify abnormalities or aberrances prior to the money going out the door," Brennan says. "This will yield substantial savings, since we normally recover only 20% to 30% of the funds once the money has been disbursed."

Customer-facing organizations that are exposed to fraud may want to follow Highmark's lead and step up the use of BI, especially for preventing fraudulent payments before funds are allocated.

_INFRASTRUCTURE LOG
_DAY 22: We've taken "add an app, add a server" to the next level: complete insanity. The servers require constant attention. Our fingers are cramping from rebooting. Haven't left the office in days.
_DAY 23: "Insane" doesn't begin to describe it. Around-the-clock maintenance is turning our staff into an army of zombies. Hey, even the undead get time and a half.
_I don't want to spend another night in the server room. I want control. I want an i.
IBM



"We wanted a tool that would filter deep into the organization, not just be used by a select few," says ROBERT FORT, IT director at Virgin Entertainment.

JOE TORENO

Getting Schedules In Sync With Customers

BY PUTTING PRODUCTS AND PERSONNEL WHERE CUSTOMERS NEED THEM, SALES GET A BOOST

BY JENNIFER McADAMS

WHEN NICK MASON of the legendary '70s rock group Pink Floyd showed up for a signing at Virgin Entertainment Group Inc.'s Megastore on Sunset Strip in Los Angeles, store managers fed the famed drummer updated sales figures for his latest book every 15 minutes by extracting data from the company's business intelligence system.

That's just one example of a major change at Virgin made possible by BI. Specifically, Sunset Strip employees can use instantly available BI data to make on-the-spot decisions — for example, strategically shifting stacks of Mason's books and CDs and quickly placing orders for dwindling supplies.

Local store managers are able to make tactical decisions like that because BI data is streamed continuously to Virgin stores across the country. The data goes far beyond statistics on customer traffic. Included in each store's near-real-time analysis is trending information, including current and historical sales and inventory figures.

Corporate executives at the entertainment giant were looking for more than a mere BI dashboard to serve up analyses on revenue and generate other data points to feed quarterly reports. Instead, they gave Virgin's IT staff the green light to design Crescendo, a system named for its ability to track dynamic waves in sales and identify other operational trends.

Marching orders, however, called for a BI workhorse tool that would provide analytical data that Virgin store managers could use in real situations. For instance, Crescendo often drives the physical placement of hot CDs or T-shirts in local stores. The system also churns out analyses of sales data that store managers use to schedule associates who walk the floors. Sometimes, BI even dictates when these workers should take their lunch breaks.

"We started with distinct store profiles that indicated heavy customer-traffic times so that stores could adjust their schedules accordingly," says Robert Fort, IT director at Los Angeles-based Virgin. "I remember that our store in Vancouver historically and consistently saw a blip around six o'clock each night, as people headed for the train station. Extra sales associates were scheduled to work at this time.

"However, traffic data doesn't mean anything at all on its own," Fort says. The company quickly moved from using BI just to compose snapshots of traffic patterns and began shoveling more trending data continuously to those directly in charge of each store.

"With our current system, we are able to track sales by the hour," says Charlie Brasby, a regional director at Virgin. "We are able to pick up on trends more quickly by evaluating any hours during the day where we fall behind last year's figures. We can also see spikes in traffic that we are not capitalizing on," he says.

Fort began spearheading the move toward increased use of BI in 2004 and was determined from the start to make its use more widespread and tactical. "We wanted a tool that would filter deep into the organization, not just be used by a select few," he says.

The first step was settling on a vendor. After wavering among providers such as Hyperion Solutions Corp. and Cognos Inc., Virgin decided to pursue a system built around Microsoft Corp. products. Specifically, Virgin uses Microsoft BizTalk business process management servers with SQL servers.

Fort and his team have relied extensively on the analysis capabilities available with SQL services, particularly the use of cubes, or online analytical processing data sets, that provide quick access to Virgin's data warehouses. "Our use of cubes has helped us launch a

Continued on page 40

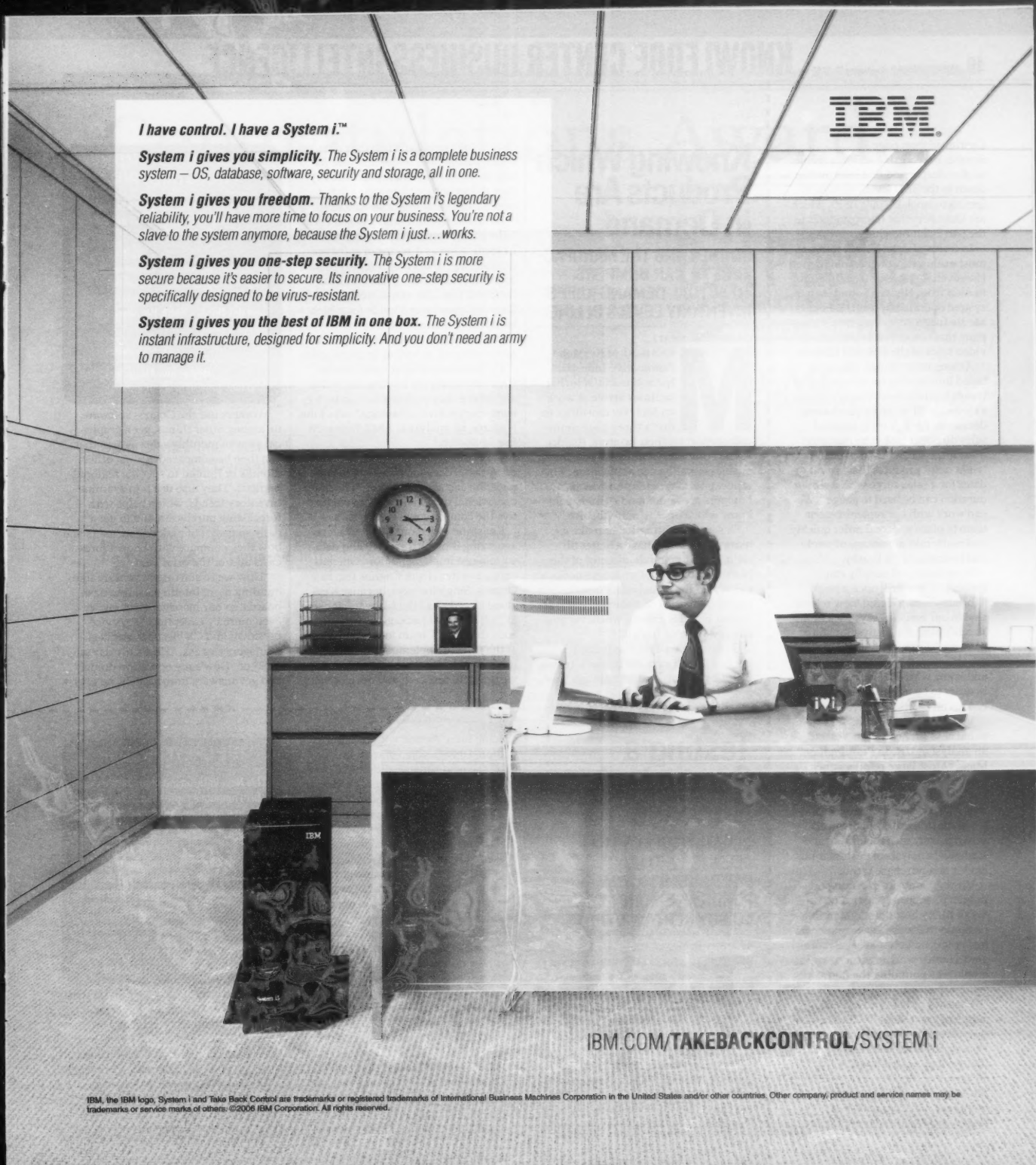
VIRGIN ENTERTAINMENT

Retail stores sell music CDs, DVDs, games and books. Annual revenue is approximately $200 million.

Robert Fort, IT director; Alan Flaesgarten, senior manager of applications and development; Manish Shah, business analyst

15 employees

Investment was recouped in 15 weeks.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Continued from page 38

number of reporting services that let us dive deeper and find information down to the SKU level," he says, referring to stock keeping units, which are identifiers that track products to the particular merchant.

In terms of data, Virgin relies almost exclusively on internal figures. However, it wraps in trending information from Nielsen SoundScan, a system operated by VNU Business Media Inc., a New York-based company that tracks music and music video sales in the U.S. and Canada.

Among other things, this combined information on industry sales trends has bolstered Virgin's efforts to leverage BI in tricky purchasing decisions. For instance, regional sales directors and store managers must forge strategies for stocking "right now" products that are candidates for a sales surge whose size or duration can be hard to gauge. "We can work with our replenishment team to place a second order quickly and really take advantage of weekend business," says Brasby.

Store managers usually run through such a drill once a week. "Tuesday is considered 'new release day' in our market," says Rick Smith, Virgin's business analyst for store systems. "Throughout the day, we are able to easily see the best-sellers and know what is currently on hand in order to be able to make quick decisions on reorders if necessary."

Virgin isn't alone in its scramble to harness BI, notes Dan Vesset, an analyst at IDC in Framingham, Mass. "Most large retailers and many entertainment companies are heavy users of business intelligence," he says. "Some of the most sophisticated users of advanced analytics rely on data mining and statistical analysis of customer behavior and purchase trends."

Virgin counts itself among the industry's more sophisticated users of BI. By better understanding customer behavior, store managers have realized better sales and created a better work environment for employees pounding the floors to sell more merchandise, says Brasby. "BI has not only improved our results but created more of a sales culture throughout our stores," he says, "where our associates enjoy hearing that we had a great hour."

McAdams is a freelance writer in Vienna, Va. Contact her at JMTechWriter@aol.com.

Knowing Which Products Are In Demand

CONNECTING THE MANUFACTURE OF CAR BUMPERS TO ACTUAL DEMAND KEEPS INVENTORY LEVELS IN LINE

BY MARY K. PRATT

MANAGERS of Keystone Automotive Industries Inc.'s 35 manufacturing facilities arrive at work on Monday mornings to find a three-page multicolor report on their printers, thanks to the Pomona, Calif.-based company's business intelligence application. The report provides details on which car bumpers are in demand so managers know which ones to manufacture.

"It's great information to make us more efficient and have a better fill ratio," says Jim Pundt, director of the Northeast division. Pundt says he hasn't calculated the actual effect on sales but is sure it helps. "I do believe there is an impact on sales growth whenever you can say, 'Yes, we have it.' "

Such detailed data was indeed needed. Pundt says the manufacturing facilities managers didn't always have insight into sales, so when they decided which bumpers to remanufacture for sale to the automotive repair industry, they did so without knowing what was needed and what might sit on a shelf.

So late last year, Pundt worked with Jeffrey Singleton, who oversees the BI application as director of software engineering, to develop a report that combines sales history data with statistics on available raw material at the facilities, providing a guide for which bumpers to manufacture.

Bottom line: The reports help eliminate overstock as well as increase sales.

Understanding what merchandise your customers are buying, and when and where they're doing it, "can be a huge competitive advantage," says John Hagerty, an analyst at AMR Research Inc. in Boston.

In fact, Hagerty says using BI for such operational decisions is where the application can add real value. "The more operational the BI is, the more competitive the company will be," he says.

Keystone rolled out BI a few years ago, tying it in with an ERP and data warehouse implementation. Officials chose a system from Cognos Inc. in Ottawa, Singleton says, because Keystone already had the software; it came as part of an old package. But Singleton adds that the IT team looked at Cognos at the time of implementation and was impressed by its strong growth and investment in research and development.

KEYSTONE AUTOMOTIVE INDUSTRIES INC.

This aftermarket car parts supplier had net sales of $628.3 million for fiscal 2006.

Jeffrey Singleton, director of software engineering; architect Vasantha Vasantha; analyst Sterling Tang; and developers Keith Harnden and Joyce Shelton

46 employees

Better inventory decisions and less time to produce reports

Workers use the Cognos software to, among other things, get a graphical view of monthly sales figures that can then be compared against other months or limited to specific regional markets. They also use it to examine inventory trends, which helps with forecasting purchases, and to get a daily snapshot of national accounts and how they compare with budget forecasts and/or the prior year.

"Now we're starting to venture into building more intelligence into dashboards, so our managers can report even more by exception," says vice president and CIO Jesus V. Arriaga. Managers can ask, "How's my day going?" or "How's my operation doing?" and get answers immediately, he says.

Testing a Campaign's Success

BI DATA REVEALS THAT CLIENTS WHO BUY PARTICULAR MUTUAL FUNDS ARE MORE LIKELY TO BUY CERTAIN OTHERS

BY MARY K. PRATT

THE DREYFUS CORP. last year ran a marketing campaign to sell a new mutual fund to existing customers. But the sales push wasn't overly successful, says John Dryzga, associate director of database marketing.

To figure out why, Dryzga drilled through the data with Dreyfus' business intelligence tools and found that the campaign was a big success among customers who already owned another specific fund. Armed with that information, Dryzga says, officials knew that "the next time we did this type of mailing, we would only concentrate on customers who had this fund."

The decision might seem minor, but it resulted in a financial windfall.

He won't disclose actual figures, but Prasanna Dhore, executive vice president of distribution, says the narrower campaign had a payback of 12 months, compared with four to five years for a broader one. Moreover, by selectively targeting recipients for a sales pitch, Dreyfus cut the cost of such campaigns by 50% compared with five years ago, he says. The savings come from reductions in labor, postage and paper.

"At one point, most of the marketing was done by hunches," Dhore says, adding that in the past, sales staffers "never knew how effective we were mailing 1 million pieces." Now they know when to mail what and to whom.

Betsy Burton, an analyst at Gartner Inc., says such uses of BI data follow the application's evolution from a reporting tool to a strategic one, an evolution that feeds into performance management. "Business intelligence was No. 1 on Gartner's CIO survey for 2006. Why is that? They want business intelligence, they don't just want reporting," she says.

Dreyfus uses an Oracle Corp. database, analysis tools from SAS Institute Inc. and a Business Objects SA application for analysts to put out numbers.

THE DREYFUS CORP.

This New York-based financial services firm manages more than $170 billion in more than 200 mutual fund portfolios nationwide.

John Dryzga, associate director of database marketing; Karin Waldman, CRM manager; Darrin Arremony, manager of database marketing

About 100 employees

Executives cut the costs of some marketing campaigns by 50% by reducing labor, paper and postage.

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Honoree Award Recipients in each of the following categories were recognized during an award ceremony at Infrastructure Management World at the Westin Kierland Resort in Scottsdale, Arizona, on September 13, 2006.

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Judging Criteria

Judges will evaluate and rank the finalists in each category according to their substantiated Infrastructure Management solution attributes and achievements against a set of criteria such as:

- Financial return and measurable payback (returns on investment, assets, resources) through created/protected revenue opportunities or cost savings.
- Strategic importance to the business.
- Substantive customer impact (service, retention, acquisition).
- Positive impact on other business/organization units.
- Addresses system and department interoperability issues and heterogeneous platform integration challenges.
- Provides a strategic advantage to the business/organization while anticipating and accommodating the deployment of future mobile and wireless solution initiatives.
- Supports the efficient and reliable data, information and application sharing/access between personnel, departments, divisions, etc.
- Addresses challenges of data, information and application security, recovery, business continuity, etc.

Thank you to our "Best Practices in Infrastructure Management" Judges for Infrastructure Management World 2006:

- Andres Carvallo, Austin Energy
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- Frank Enfanto, Blue Cross Blue Shield of Massachusetts
- George Feitel, Wavera
- Don Gibson, FedEx Kinko's Office and Print Services
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- James Wheeler, BellSouth Corporation

SUSAN FARRINGTON

Keeping a Watchful Eye On Patients

INDIVIDUALS STRUGGLING WITH ILLNESS ARE IDENTIFIED AND HELPED, DRIVING DOWN COSTS AND IMPROVING CARE

BY MARY K. PRATT

HUMANA INC.'S business intelligence application recently sorted through claims to flag one particular member: a 44-year-old man hospitalized for a ruptured appendix. He had shown up as a "high utilizer" of health care services, prompting a call from one of Humana's personal nurses.

The nurse discovered that the man also had cancer and was struggling with social issues. She learned that he was having difficulty paying medical bills. She helped him better understand his medical condition and referred him to several agencies for financial help.

Like most organizations, Humana is looking for ways to keep costs down. Its homegrown BI application helps the health insurer do just that. But perhaps more important, Humana's internally developed BI tool, called Medical Metrics, helps its workers improve the lives of its sickest customers.

"Medical Metrics has allowed us to find a lot of folks who have not been identified for our disease management or personal nurse programs, folks who are high-cost, high-need members," says Gary Thompson, vice president of clinical programs.

N. Venkatraman, a professor and chairman of the information systems department at the Boston University School of Management, says BI is particularly important for health-care-related organizations because of increasing costs and competitive pressures.

Moreover, he says, BI is indeed identifying these high-cost patients who "might have fallen through the cracks."

Humana started the first phase of its BI implementations with Medical Metrics in 2003, says Bruce Sterpka, vice president for corporate information management. Louisville, Ky.-based Humana opted to develop its own BI tools because workers didn't find "an off-the-shelf solution that delivered all that our business asked for."

The company also wanted more flexibility than it could get with commercial products, says Marcus Bourke, Medical Metrics product manager, because it has to rapidly adjust to changes in the health care market. In addition, Bourke says, Humana wanted a tool that was easy to use. "We want someone to be able to come in the door and, with an hour-and-a-half training session, be up and running with this tool," he explains.

Clinical staff members use Medical Metrics to identify high utilizers. Underwriters use it when developing rates for groups, and actuaries use it to help identify trends.

Data comes almost entirely from internal sources, such as Humana's benefits and claims systems, Sterpka says. Data is scrubbed, collected and stored in the company's data warehouse.

Thompson says the initial intent was to use Medical Metrics on the commer-

HUMANA INC.

This health insurance company has more than 11 million members; in 2005, its revenue was $14.4 billion.

Mike Beavin, director of corporate information management; Gary Thompson, vice president of clinical programs; Mike Terkula, CIM manager in the IT unit

1,470 employees

Productivity gains and an increased ability to identify its sickest members.

cial side, "to be able to understand the claims that come in annually so we can stem that rising cost."

Now, Humana workers in various departments can drill down on cost drivers and get standardized, consistent information on those factors, says Mike Beavin, director of corporate information management.

Medical Metrics users have access to a half-dozen standard reports all connected to the same data source. They can also drill down to very fine details to identify trends and cost drivers.

"If I was sitting in the Louisville market office and wanted to know what was happening there regarding medical trends, I could go into this application and put up market trends and find stats on all the other markets," Beavin says.

Sterpka says users can customize the time periods being compared and drill down to selected markets, products and even subproducts. Without this application, such information was difficult to access and often late. "What typically happened is someone noticed an abnormal trend at a high level in a particular market, and then it became a fire drill," Sterpka says. And those patients who needed help getting through the system? "We were missing people, and we did not have a solution to plug those gaps. In today's environment, it's presented in a couple of clicks," he says.

Humana hasn't calculated the ROI or total cost of ownership for its BI implementation, but Sterpka says monthly uses for Medical Metrics jumped from about 400 to nearly 900 between January 2005 and June 2006.

Pratt is a Computerworld *contributing writer in Waltham, Mass. Contact her at marykpratt@verizon.net.*

Making Price Adjustments On the Fly

DIP IN A KEY REVENUE STREAM FOR THIS HARDWARE DISTRIBUTOR TRIGGERED A QUICK PRICING DECISION

BY JENNIFER McADAMS

HOME AND CAR KEYS have become more expensive to duplicate because of the soaring costs of metals. After business intelligence data gleaned from a new Web-based system showed that this added expense had reduced annual revenue tied to key-cutting equipment sales by a full 1%, executives at hardware wholesaler The Hillman Group Inc. scrambled to adjust prices.

The quick changes helped to pull revenue derived from key manufacturing sales closer to previous levels. In the past, such a move couldn't have been made so quickly, because it would have required executives to wait for reports that were only generated once every few weeks.

Cincinnati-based Hillman distributes bolts, screws, nails and other products to home improvement giants, such as Home Depot and Lowe's, and to mom-and-pop hardware stores. Since the need for an extra set of keys tends to draw many people into local hardware stores, Hillman leans heavily on its lines of key-cutting equipment to retain a strong customer base.

In addition to seking a means of monitoring key-cutting sales, Hillman executives were looking for a more effective way to react quickly to sudden changes in any of the company's many product lines. Dogging those efforts, however, was a reliance on four separate systems used to generate trending data. Information on major product categories had to be pulled from these different transactional systems.

To streamline revenue reporting and bolster the level of BI data available to decision-makers, Hillman adopted a new product management application.

"Since our systems were not consolidated, we had no bird's-eye view of our revenue, sales and other financial data," says CIO Jim Honerkamp. "Now executives, including sales representatives, can view revenue in a way that shows plan vs. actual and the percentage of variation at that very moment in time."

Hillman settled on New York-based Information Builders Inc.'s WebFocus BI platform, primarily because the application would easily overlay the company's existing reporting systems. Already in place, for example, was Oracle Corp.'s J.D. Edwards World application, which houses information about a specific Hillman product line — the letters, numbers and signage used to mark home and commercial addresses. A homegrown application churned out reports on the sales of bolts and other fasteners.

Now, WebFocus quickly plucks BI data from all four systems, cleanses the information and serves it up to executives poised to make strategic decisions. "We have enabled our product managers to quickly analyze product classes, subclasses and items to identify where the bleeding is at its worst and implement immediate changes to correct performance," notes Pete Hebauf, Hillman's manager of executive information services.

THE HILLMAN GROUP INC.

This hardware distributor offers key and engraving services at more than 30,000 retail stores.

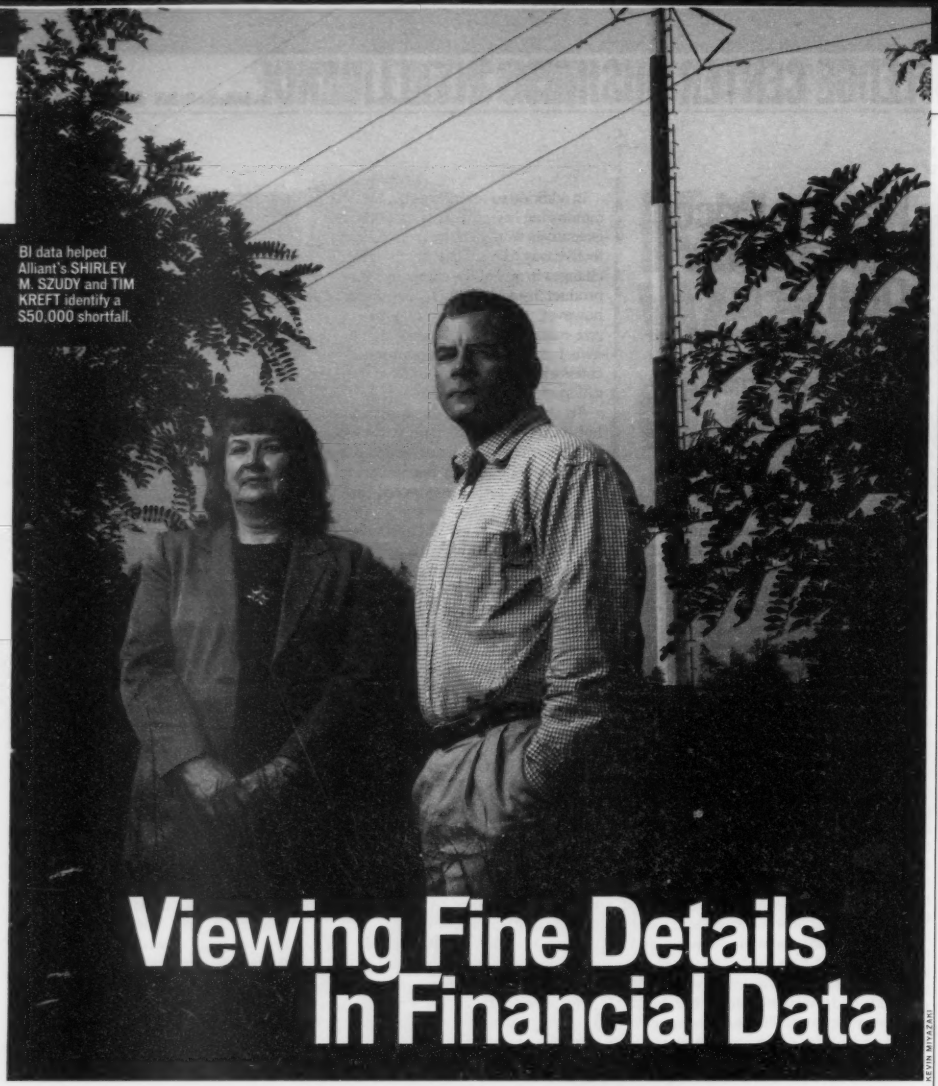
Jim Honerkamp, CIO; Pete Hebauf, manager of executive information services; Kirk Townsley, WebSphere portal administrator/analyst

28 employees

Decreased margin erosion caused by increasing costs of raw materials.

Product managers aren't the only consumer packaged goods executives who stand to benefit from the use of BI, says Dan Everett, an analyst at San Mateo, Calif.-based Ventana Research Inc. Everett points out that market profiling and segmentation is crucial to corporate-level initiatives. "BI can be beneficial in a number of business processes," including point-of-sale monitoring, shelf replenishment and merchandise planning, he says.

Hillman's next step toward increased responsiveness involves tying geographic information system technology to BI data. With that technology, says Kirk Townsley, Hillman's WebSphere portal administrator and analyst, "we will be able to expose product sales patterns geographically, allowing our account managers to work closely with our customers to maximize our sales potential."



BI data helped Alliant's SHIRLEY M. SZUDY and TIM KREFT identify a $50,000 shortfall.

KEVIN MIYAZAKI

Viewing Fine Details In Financial Data

QUICK ANALYSIS OF EARNINGS REPORTS UNCOVERS ANOMALIES AND REDUCES PREP TIME

BY MARY K. PRATT

WHEN Alliant Energy Corp. executives decided to prepare the company's earnings before interest and taxes (EBIT) reports using business intelligence tools from Cognos Inc., they knew they'd drastically cut the number of man-hours it took to prepare them.

But a single incident proved that paybacks could be much more dramatic, says Shirley M. Szudy, senior consultant in the business and financial planning generation group and lead of the group's central finance section. The tool allowed officials to quickly see that they'd been shortchanged $50,000.

"We identified the problem early and corrected it before it had a significant financial impact on us," Szudy says, adding that without BI, identifying the shortfall would have taken months.

Alliant Energy's BI efforts started in 2002, when it implemented a large ERP system and created an enterprise data warehouse, says Tim Kreft, team lead of enterprise application integration, data warehouse and business intelligence. Kreft won't disclose the actual cost of the investment but says it was a multimillion-dollar project.

Most companies take a different path, first replacing legacy systems with ERP systems, then creating a data warehouse to capture the transactions. The last step is usually buying the BI software.

"So they never get to the benefits of what ERP offers them because they're going through the sequence, and five or six years later, they're putting in a BI tool," says Colin Snow, an analyst at Ventana Research Inc. in San Mateo, Calif. Alliant Energy did these things in parallel. "That's how they got creative," Snow says. "They got the benefit of BI right upfront; they're probably a case study of what to do."

Alliant Energy chose Oracle Corp. database software and uses extract, transform and load (ETL) tools from Informatica Corp. in Redwood City, Calif. The BI application itself comes from Ottawa-based Cognos, Kreft says, partly because it had been installed a few years earlier as a department-specific application, where it proved valuable.

Now 1,500 people in 10 business groups throughout Alliant Energy use Cognos, which drills down and slices data from both internal and external sources. Users get everything from the daily budget to actuals, as well as information on fuel spending and visibility into related trends.

Kreft also points to another benefit: standardized data sets. Staff members analyzing data and reports know the information is reliable and accurate, with all figures coming from the same sources. Employees used to come to meetings with their own data, spreadsheets and reports and would argue about how the numbers were created and whose numbers were right. "Now we know the numbers are right," he says.

Moreover, the time to get this data has been drastically reduced, he says. Reports that once took up to 10 hours to prepare now take just 45 seconds.

It's not just the timeliness of reports that makes a difference, however. The level of detail and the depth of data also count big-time, which is what Szudy learned with the EBIT reports.

Szudy's section, which is responsible for reporting financial information on the company's 14 generating facilities plus its combustion turbines and hydro facilities, generally uses BI to look at data and create reports. She says her staff uses a multidimensional cube to slice the data to meet their needs.

Prior to the Cognos implementation, it would take one person using Excel three days to prepare the monthly EBIT reports, which are used to determine whether Alliant's power-generating plants are profitable. Now

ALLIANT ENERGY CORP.

The subsidiaries of this Madison, Wis.-based energy services provider serve approximately 1.5 million customers.

Tim Kreft, team lead of enterprise application integration, data warehouse and business intelligence; Dan Patzner, manager of applications development; and David Cagigal, chief information technology officer

192 employees

Significant savings in man-hours needed to prepare reports, and increased visibility into financial data.

the process takes about an hour.

Part of the data collected is on the revenue gained through the Midwest Independent Transmission System Operator (MISO) footprint, through which Alliant Energy makes bids to offer its power generation. The revenue received from MISO is captured every five minutes by location. That volume of data was much harder to capture in the EBIT reports using Excel, Szudy says.

But with Cognos, she says, "we can collect information more efficiently [and] with a greater degree of accuracy, and use EBIT to make sound business decisions regarding the profitability of our plants."

That's how officials identified the $50,000 error, Szudy explains. Alliant Energy's energy risk management and trading area used EBIT data to find MISO revenue problems by viewing gross margins and looking for exceptions rather than looking at all the data.

"We'll be using EBIT information on a regular basis to look at all 80 generating locations we have in the MISO market to ensure that we are getting the revenue to which we are entitled," she adds.

Alliant Energy executives say they expect such successes to drive future expansion of BI. Kreft says he plans to add more data and more data marts "as people get more accustomed to using these tools." He notes that his team is specifically working on getting more data about performance, fill rate and other metrics so that the company's supply chain area can optimize the BI application. Kreft says he also wants to add dashboards in the future.

Pratt is a Computerworld *contributing writer in Waltham, Mass. Contact her at marykpratt@verizon.net.*

Getting Smarter With Each Sale

A WINNING SELLING STRATEGY IS IDENTIFIED AND COPIED THROUGHOUT THE RETAIL CHAIN

BY DREW ROBB

EASTERN MOUNTAIN Sports Inc., an outdoor specialty retailer headquartered in Peterborough, N.H., turned to business intelligence software to gain insight into the actions of individual shoppers and boost sales of high-profit items.

"Using the general dashboard, we identified a behavior with our Footwear Guru program where people [at one store] were selling a lot of custom footbeds," which are shoe inserts that sell for $20 to $40 per pair, says Richard Pedott, EMS's vice president of sourcing, planning and allocation. He called the store manager, who looked at the same information and determined what that store was doing to produce that result. That selling strategy was then moved out to rest of the stores.

"We had a 73% pickup on footwear accessories, and that is a high-margin business," says Pedott. "That's just one example of the many things that can happen with BI software."

About 18 months ago, EMS began using WebFocus BI software and iWay middleware from Information Builders Inc. in New York. IWay extracts point-of-sale data from EMS's AS/400-based legacy ERP software and other applications and loads it into a Microsoft SQL Server data mart.

EMS then uses WebFocus to create dashboards, which provide a common view of that data to more than 200 end users at the headquarters office and retail stores.

"EMS has more than 80 stores, with several disparate data sources, including legacy merchandising systems, financial systems and point-of-sale devices," says Keith Gile, an analyst at Forrester Research Inc. in Cambridge, Mass. "Accessing this wide array of data sources and delivering reports, analysis and information back out to the store management in an easy-to-use fashion were key."

Pedott says the ability to easily link these data sources was a leading factor in selecting WebFocus and made it possible to go from design to installation in 12 weeks. Another was ease of use. "If you can surf the Internet, you can use their tool," he says.

The biggest benefit, according to Pedott, is that with WebFocus, everyone from the CEO to the store managers gets a common view of the information, which they can then use to identify locally successful sales and operations activities to implement throughout the company.

"With business intelligence software, I can discover what products customers purchase together and with what frequency," says Pedott. "This assists in determining product placement on the floor, creating strategic promotions and deciding what items to include in our shop on the Web."

His next step will be to expand the BI system out into the supply chain. "BI can become a cheap way to do collaboration with suppliers and other B2B partners without requiring them to make an investment," Pedott says. With WebFocus, he can create a mini version of the dashboard and e-mail it out as a Zip file. The hoped-for result is to have as many people as possible actively involved in the company's success.

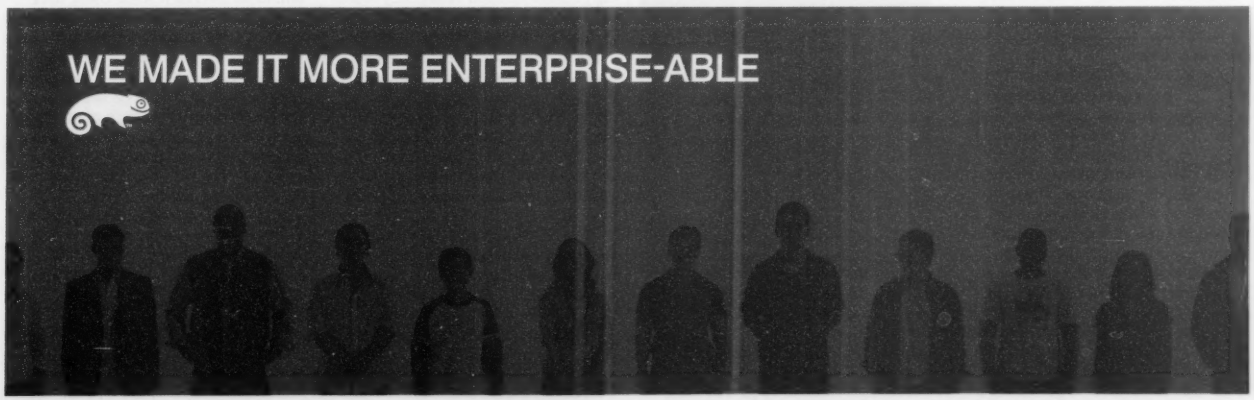
"If it is done well, BI provides focus and gets every brain into the game," Pedott says. "It dramatically increases the number of ideas to grow the business."

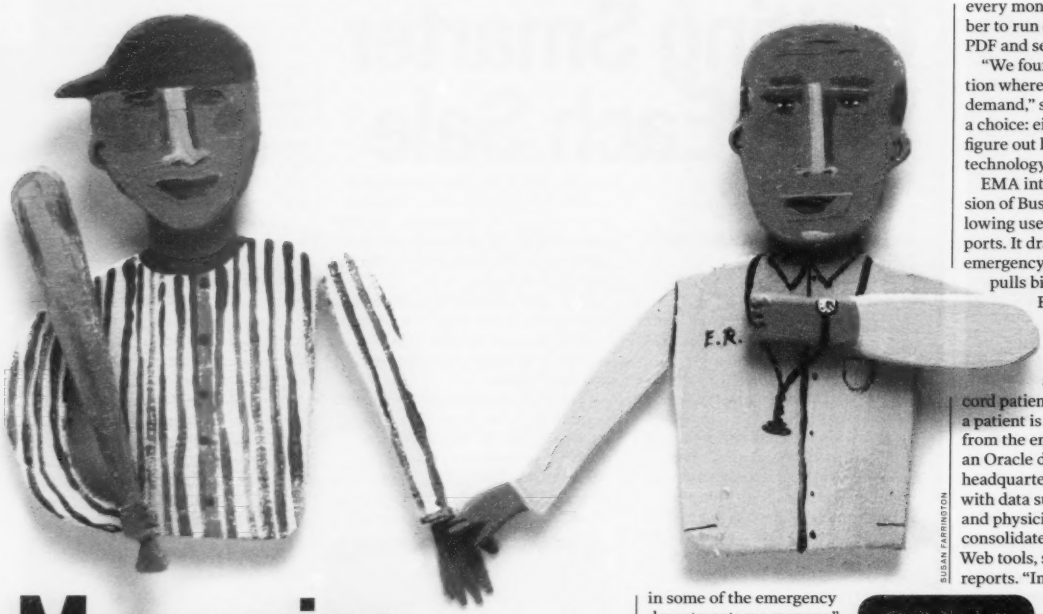
EASTERN MOUNTAIN SPORTS INC.

This specialty outdoor retailer has more than 80 stores in the northeastern U.S., plus online sales.

Richard Pedott, vice president of sourcing, planning and allocation; Cathy Boutwell, project leader

The ability to identify individual customer purchasing patterns and thereby increase certain types of sales by as much as 73%.





SUSAN FARRINGTON

Measuring The Emergency Room's Pulse

BY IDENTIFYING PEAK TIMES IN THE ER, HOSPITALS CAN SCHEDULE THE RIGHT AMOUNT OF RESOURCES

BY DREW ROBB

EMERGENCY ROOM DOCTORS use an array of monitors to keep track of patients' vital signs. But just as important to a patient's recovery is how well the team performs overall in providing care. The better an emergency department's resources are scheduled and allocated, the faster the service and the better the end result.

Emergency Medical Associates in Livingston, N.J., uses business intelligence software from Business Objects SA to give doctors and administrators of the 17 hospital emergency departments it manages access to data in near real time. In addition to producing a positive financial result, it has also helped improve clinical outcomes and patient satisfaction.

"We have managed to cut the number of patients who leave without receiving treatment by 50% or more in some of the emergency departments we manage," says Eric Bachenheimer, EMA's director of client solutions. EMA looked at the patient arrival rate to determine when the peak times are in the emergency department, as well as at the types of cases being diagnosed. "From that we can understand when the greatest stresses on the system exist," Bachenheimer says.

By looking at the diagnostic data, for example, EMA units have increased the numbers of nurses, changed bed allocations, developed systems for moving patients through emergency rooms more quickly, and introduced specialized units for observation.

Jonathan Rothman, EMA's director of data management, began laying the groundwork for the BI system in 1998. In 2001, he deployed a non-Web-based version of Business Objects that required him to manually run any reports requested. Then came the challenge of getting people to use the system.

"The hardest part of BI is not the technology; it is the culture," Rothman explains. "Teaching people how to act upon data and analytics is harder than building the tools that report the data."

But people did catch on, and Rothman found himself having to compile a list of every single report that all the hospital managers wanted to see. Then, every month, he would have to remember to run each report, export it as a PDF and send it to those individuals.

"We found ourselves in a situation where we couldn't keep up with demand," says Rothman. "So we had a choice: either hire more people or figure out how to better utilize the technology."

EMA introduced a Web-based version of Business Objects in 2004, allowing users to generate their own reports. It draws in the data from various emergency department systems and pulls billing information from an Epicor Software Corp. financial system.

All administrative and clinical personnel use an electronic medical record patient-tracking system. When a patient is discharged, his data flows from the emergency department to an Oracle data warehouse at EMA's headquarters. There, it is combined with data such as patient-satisfaction and physician billing information. The consolidated data is presented through Web tools, scorecards, dashboards and reports. "In a single view, the doctor can quickly see the most important metrics for clinical operations, financial operations, patient-flow operations and patient satisfaction," Rothman says.

"If the use of query and reporting is to broaden in companies, BI tools must enable nontechnical business users to create and modify reports themselves," says Dan Everett, a BI analyst at Ventana Research Inc. in San Mateo, Calif.

While doctors can view their own charges, treatments rendered and patient-satisfaction rates on their scorecards, administrators can use the system to see overall results. Using data from Business Objects, administrators can look at specific diagnoses, by hour, to understand the types of patients they are seeing. "If we know there is a high number of patients going through the cardiac services unit, it may mean we will need a cardiac catheterization laboratory," Bachenheimer says. "You come up with a strategy or an approach that you believe is the answer," he says. "Then you look for the BI solution to tell you how you are really doing, whether you are on target or not, and if you need to adjust the strategy for maximal impact."

"We have made dramatic improvements in patient turnaround times," Rothman says. "There has been a revenue impact, a quality of care impact, a satisfaction impact and a cost impact."

EMERGENCY MEDICAL ASSOCIATES

This physician-owned group manages 17 emergency rooms for hospitals in the New Jersey and New York area.

Jonathan Rothman, director of data management; Ray Iannaccone, physician champion

30 employees

Reduced by 50% or more the number of patients leaving without being seen in some locations.

Fine-tuning a Sales Strategy

CALL CENTER AGENTS CHANGE THEIR SELLING TACTICS BASED ON CUSTOMER SATISFACTION TRENDS

BY JENNIFER McADAMS

BEFORE some recent changes, contact lens wearers who dialed 1-800 Contacts to fill prescriptions often reached call center agents overly focused on making a sale. But business intelligence data pointed to a more prudent strategy: Agents should aim to maximize customer satisfaction by helping with physician follow-ups and making other moves that would lead to long-term increases in sales.

More than 150,000 customers hit 1-800 Contacts Inc.'s Web site or call centers each week. Agents must not only handle orders but also walk customers through a process that eventually involves verifying prescriptions with their eye doctors.

Until recently, 1-800 Contacts executives relied on a narrow metric to gauge the performance of its many call center agents — the number of inbound calls that resulted in completed sales. Through the use of BI, the company's IT and marketing staffers saw that the lack of qualitative customer service information meant that changes in the way call center agents were interacting with customers were unlikely to boost sales.

1-800 CONTACTS INC.

This contact lens retailer has major online and call center operations that post sales of 15 million contacts to more than 5 million customers. The company declared $237 million in revenue in 2005.

Jim Hill, manager of the data warehouse; Kevin McCallum, senior vice president of marketing and operations; Rob Hunter, chief financial officer

50 employees

Call center changes linked to business intelligence increased sales by $50,000 per month.

To change the behaviors of both agents and customers, company officials decided to routinely inject a wealth of BI analysis into 1-800 Contacts' call centers and filter trending data all the way down to agents manning the phones. Now, for instance, figures flash across an agent's screen that compare his performance to that of other agents scattered throughout the center. Information on how an agent's current performance compares with how well he did in the past is also on hand. And banners extolling top producers at the center also appear on agents' screens.

"How our customer service agents perform with regard to specific metric targets is mandatory knowledge," says Kevin McCallum, senior vice president of marketing and operations at 1-800 Contacts. "We cannot influence customer behavior unless we have insight into how our actions influence their behavior. BI is key to closing the loop between our actions and changes in customer behavior."

"All of this has made a huge difference. First and foremost, the overall quality of the calls and the way these calls are audited has improved," says Jim Hill, manager of the data warehouse at 1-800 Contacts. "The steps we've taken make the agents feel empowered to make changes, and those changes are ultimately based on BI data that we load every 15 minutes."

To generate call-center-specific BI data, 1-800 Contacts relies on a system that makes use of Microsoft SQL Server, which plays host to BI functions, such as those with extract, transform and load capabilities. Agents access information by tapping Microsoft SharePoint collaboration services. Finally, 1-800 Contacts' corporate executives monitor contact center performance through BI dashboards that Hill and other staffers built using Dundas Software Ltd. applications.

Hill says that 1-800 Contacts' 400 call center agents have boosted sales by using BI information to change their approach to customers.

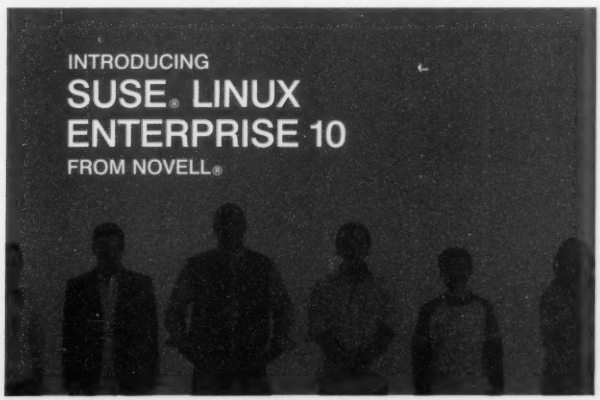
"In terms of dollars and cents, our closing ratios have improved, as have our average sale size and the number of calls a center is taking," he says. "Per month, this has amounted to a $40,000 improvement."

> **"We cannot influence customer behavior unless we have insight into how our actions influence their behavior. BI is key to closing the loop between our actions and changes in customer behavior.**
>
> **KEVIN McCALLUM,** SENIOR VICE PRESIDENT OF MARKETING AND OPERATIONS, 1-800 CONTACTS

Financial success of 1-800 Contacts' BI initiative ultimately hinged on the feedback now delivered to each agent, says Jason Cann, a customer service representative. "I feel that I now have access to how well I am doing all of the time," he says. "In the past, I have experienced the opposite. I have felt clueless on what areas I needed to improve and didn't have the information available to give me any sort of direction."

Indeed, companies nationwide are realizing that productivity metrics for large call centers need to be stronger. "The use of BI in contact centers is emerging rapidly, meaning there is a real shift in focus from traditional productivity metrics to more qualitative effectiveness-type metrics," notes Mike Stokes, a senior consultant at Strategic Contact Inc., a call center consultancy in Beaverton, Ore.

Companies with mission-critical call centers might consider 1-800 Contacts' strategy: Use BI to boost what you know about how agents execute calls, while giving customer service representatives guidance on how to do better. ▸



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Getting Help to Those in Need Faster

CLAIMS AGENTS CAN FLAG AND PROCESS EMERGENCY RELIEF FOR DISASTER VICTIMS

BY JENNIFER McADAMS

AT ALLSTATE INSURANCE CO., business intelligence technology must prove itself every time a hurricane blows through Florida or wreaks havoc elsewhere in the U.S.

The insurer's BI functionality hinges on an Oracle data warehouse harnessed to data-gathering tools from Lexington, Mass.-based Ab Initio Software Corp. that extract information from various Allstate repositories. Agents access critical data using front-end BI tools from Business Objects SA.

The Northbrook, Ill.-based insurance giant's data warehouse contains crucial claims information — including the reams of data gathered by adjusters crawling through a hurricane's aftermath. The data is updated daily and accessed by business analysts and managers. With the swift output of this BI data, Allstate managers can flag and process emergency claims much more quickly — providing faster relief to the victims of devastating hurricanes and other natural disasters.

But implementation of the system has had its ups and downs. Allstate faced a pair of challenges: user acceptance and the constant struggle to safeguard data quality.

Selling the system internally required Allstate's IT staff to tread lightly, explains James Young, senior manager for enterprise BI. "We were able to balance the new system with traditional sources and explain the nuances that ultimately led to acceptance and adoption of the new solution by the claims area," he says.

The responsibility for checking the quality of the data falls to a group of IT specialists who focus exclusively on the integrity of information contained in the data warehouse. Allstate also relies on Ab Initio's extract, transform and load tools to ensure data quality.

Now that BI has bolstered the insurance company's claims operations, Allstate plans to use the technology more broadly. "BI has helped demonstrate the success of close collaboration between IT and business units," says Young. "This project has laid a strong foundation for exploration into future BI solutions and will prove merely to be the beginning." ▸

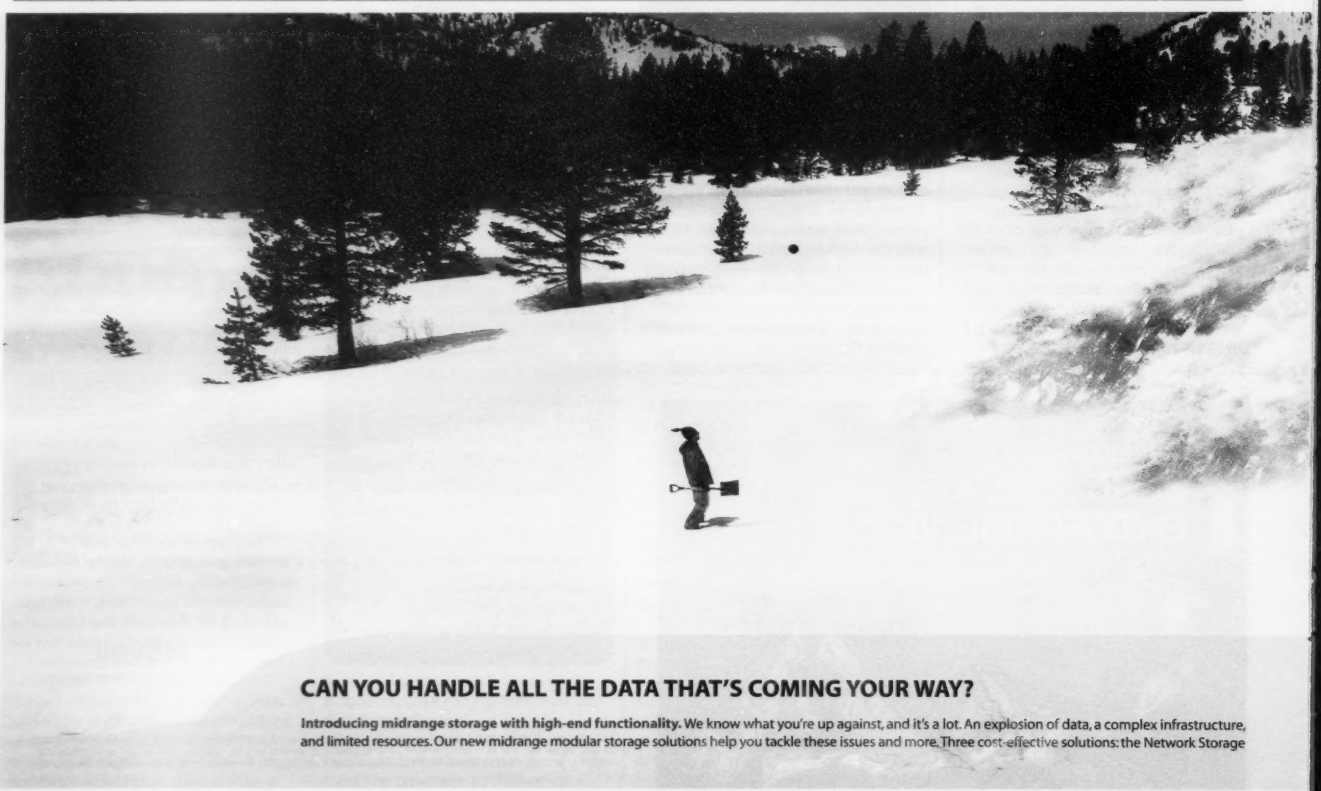
ALLSTATE INSURANCE CO.

This company offers 13 lines of insurance, including property, life and auto. A Fortune 100 company with $156 billion in assets, Allstate serves 17 million households.

James Young, senior manager for enterprise BI; Anthony Abbattista, vice president of enterprise technology strategy and planning

6,000 employees

Significant improvement in the insurance quoting process and claims management, especially for claims associated with emergency relief for victims of hurricanes and other natural disasters.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Aligning Purchases With Solid Data

THIS TRANSPORTATION FIRM SCALED BACK PLANS TO BUY CAPITAL EQUIPMENT

BY MARY K. PRATT

SCHNEIDER NATIONAL INC. depends on its equipment for success, so it's no surprise that the transportation company needs to be sure it has the right capital in the right place at the right time.

But in the past, says senior box manager Dan Symons, officials had to rely on incomplete information when planning Schneider's annual purchase of "boxes" — the company's term for trailers. The question was always, Do we purchase new equipment or not?

"We struggled to get that data and feel good about the decisions we made," says Symons.

That changed in mid-2005, when he used the company's BI application to look closely at equipment use. Symons found that the data didn't support the company's capital plans, and officials scrapped plans to buy trailers. He won't disclose actual savings but says each trailer costs more than $20,000.

It was a lesson that figured heavily when planning for 2006, Symons adds. Using load forecasts for the year, he looked at whether the company would have a trailer deficit or excess. He says the 2006 budget called for "very few purchases," and halfway through the year, "we feel we got it right."

"The fact that the company got to the point of feeling comfortable with the data off BI to make decisions, that is a classic home run," says John Hagerty, an analyst at AMR Research Inc. in Boston. "They're not using it anymore just to inform themselves; they're using it to drive what they do."

"We use it in about every area of our business," says John Hasenzahl, director of knowledge services and data management at Schneider. "It's really become more and more important to our end users to make day-to-day decisions."

SCHNEIDER NATIONAL INC.

This Green Bay, Wis., company provides transportation, logistics and related services to more than 80% of the Fortune 500.

Judy Lemke, executive vice president and CIO

About 400 in-house IT professionals, plus up to 200 contract workers. There are 12 dedicated BI team members.

BI data saved the company from buying trailers, at a cost of more than $20,000 each.

Users have a standard set of analytics, but they also have ad hoc capabilities so they can create their own information cubes and reports. Hasenzahl says they also use dashboards for operational metrics and scorecards to see how efficiently the company is using its carriers.

In 2001, Schneider National started building an enterprise data warehouse that now supports 40 Web-enabled data marts, Hasenzahl says. Data comes from more than 50 application systems, as well as external sources.

The company went with BI tools from Cognos Inc. Products from Informatica Corp. are used to transform and load the data. The data warehouse is from Oracle Corp. Hasenzahl won't disclose the actual cost but acknowledges that it was a multimillion-dollar investment that took 150,000 to 200,000 man-hours.

Next, Hasenzahl says, his team wants to push information out to users so they have "right-time information."

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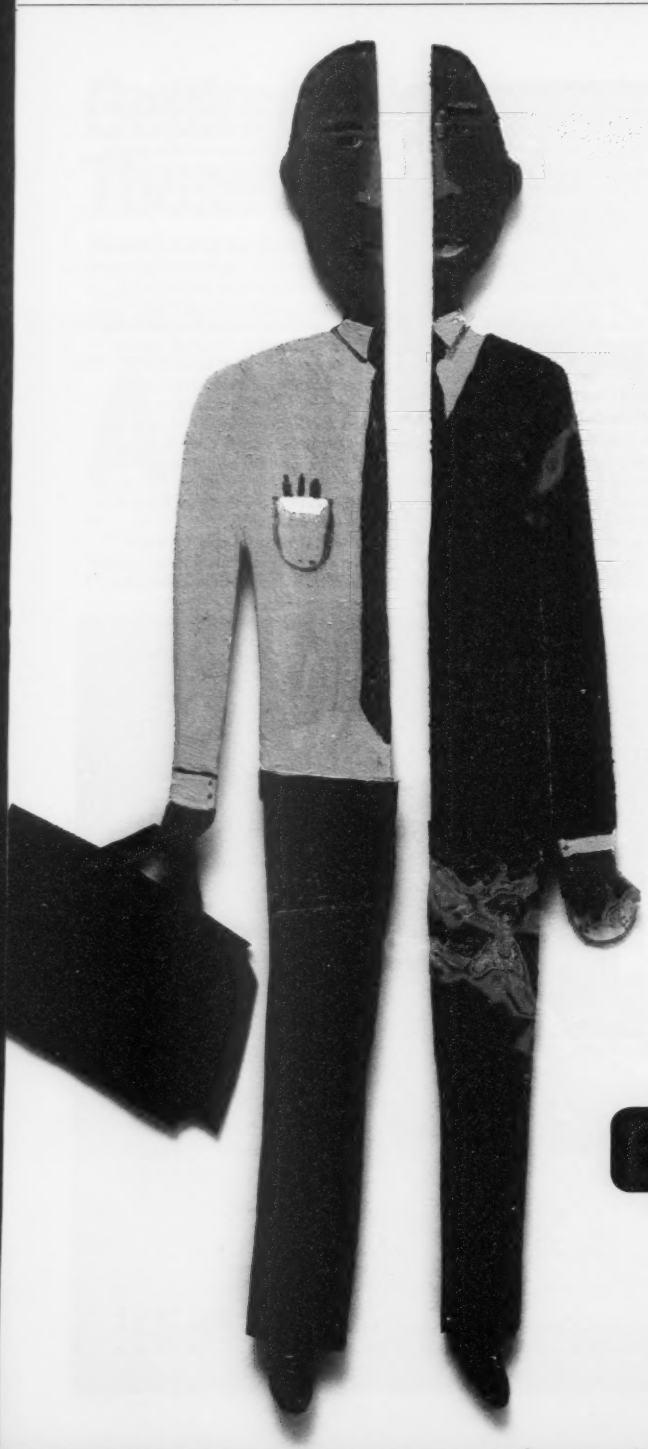

SUSAN FARRINGTON

When Art Meets Science

SKILLS **BI PROFESSIONALS ARE IN DEMAND, BUT THE JOB TAKES A RARE COMBINATION OF BUSINESS AND TECHNICAL SKILLS**

BY MARY BRANDEL

FOR IT professionals interested in career advancement, a scan through the help wanted ads could pique their interest in the booming business intelligence arena. It's no wonder there are so many new BI positions: With increasing competitive pressures, companies have to make smarter decisions, which BI systems can support. And with the growth in Web-enabled systems, BI is no longer cost-prohibitive.

But be warned — according to people who observe or inhabit the BI profession, it's one of the more challenging areas to pursue, requiring computer science savvy, business knowledge, analytical acumen, creative thinking and even social charm. It's also not unusual for companies to look for individuals with undergraduate degrees in quantitative areas such as engineering, statistics, natural sciences or economics, and for developers with specialized technology skills, such as experience with SAP AG's NetWeaver.

It seems that the high demand for BI professionals is equal to the high expectations of businesses looking to hire them. "There are positions in business intelligence that never get filled," says Cindi Howson, president of Analytic Solutions Know-How, a consultancy in Sparta, N.J. "But it's one of the toughest roles to play, because you can't just major in computer science and expect to succeed."

Business Leads

In fact, the most important skill, according to Bill Hostmann, an analyst at Gartner Inc. in Stamford, Conn., is understanding the kinds of decisions

Continued on page 52

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Continued from page 50

that businesses need to make, the questions they tend to ask and the types of data that will answer those questions.

"It's not just knowing the tools; it's having a feel for the business processes the tool supports," observes Jason Pashko, senior director of database, reinvestment and analytics at Harrah's Entertainment Inc., which uses BI heavily throughout the organization. "It's knowing what the person in marketing is really after when he says, 'I want to pull a list together because we're giving away a Corvette this weekend.' "

A business foundation also helps BI analysts know how to present the required data. "What sets a BI analyst or developer apart is knowing what information should be presented and the format of how it is presented. Bombarding the customer with too much information is just as bad as not enough," says Andy Wojewodka, director of business systems and decision support at Del Monte Foods Co.

Wojewodka's background is in IT, and he gained his business and BI experience during the past seven years through collaborating and networking with peers, attending industry analyst summits and doing his own research.

Presenting BI data is where creativity comes in. "It's an art," Wojewodka says. "You have to present data in a fashion that's easily understood and digestible and enables the business owner to quickly assess varying performance in key performance indicators." The presentation should also supply subsequent analytics so that users can easily navigate to root causes, he adds.

Not that software engineers and SQL writers aren't highly valued; their computer science understanding is crucial to all three parts of a BI system: extracting, transforming and loading data; consolidating, standardizing and organizing data; and query, analysis and reporting, according to David Foote, founder of Foote Partners LLC in New Canaan, Conn.

Technology prowess is also essential to building a BI infrastructure, choosing the right analytic applications and tools, building data models and queries, choosing a data delivery approach, accessing relevant systems and databases for needed data, and ensuring data quality, Hostmann says. "They need to know where the data quality hot spots are so that if the BI tool is giving you the number 42, you know that's an accurate number," he says.

BI professionals also need a strong understanding of metadata and structured design techniques, Foote adds.

TOP 5 CRITICAL TECHNOLOGIES

Data security/privacy	57%
Disaster recovery/ continuity planning	54%
Antivirus protection	46%
Data management/ business analytics	45%
Servers	43%

BASE: 300 RESPONDENTS

Moreover, technology know-how can help you avoid writing bad queries and reports. "Power users will do whatever they have to in that moment to get their information, and they might put a gazillion calculations into a report or have 30 different definitions for a particular metric," Howson says. On the other hand, IT professionals would know to create standardized calculations and make them centrally available.

Companies with highly sophisticated BI needs, such as Del Monte and Harrah's, also look to hire candidates with mathematical and statistical training. That's essential to performing predictive analysis and optimization, says Wojewodka.

Social Skills

BI pros also need better communication skills than most computer workers have. Not only do they work hand in hand with business users, but they also work with many other constituents, such as data stewards and subject-matter experts, to ensure data quality.

"We want people who are analytic, technical and quantitative but also have business sense and lots of personality," Pashko says. "We're in a service-oriented business, and personality counts, as do customer service and interpersonal skills."

TOP IT PROJECT PRIORITIES IN THE NEXT THREE MONTHS:

1. Disaster recovery/ continuity planning
2. Data management/business analytics implementation/upgrade
3. Data security/privacy

BASE: 300 RESPONDENTS

User interaction is a big part of the job, particularly because as business users discover the power of data mining and other BI functions, they tend to want even more capabilities. Plus, BI professionals are also often responsible for training users on the BI tools and helping them use the tools effectively.

"The biggest gap right now is that companies buy these tools and then no one knows how to use them," Hostmann says. "BI analysts need to work with users from the CEO level down to the line manager and explain to them why they're getting a particular result or how to get the answer to the question they have."

At Del Monte, the primary role for lead BI analysts and project leaders is to learn as much as the business owners relative to given business processes and disciplines and to be trusted business partners with front-line departments, Wojewodka says. "They can't be order-takers; they have to be more like advisers, presenting options so that users think out of the box," he says.

"They almost have to understand [the business] as much as the user himself," Howson adds. That's why so many people from the business arena enter the field. At Valero Energy Corp., for instance, Kirk Hewitt, director of reporting and financial systems, was a self-described power user in the accounting department with 20 years of experience in the oil industry before moving into the BI area.

Six years ago, Hewitt accepted a position in IT that involved consolidating the San Antonio-based refiner's many acquisitions onto a single SAP ERP system. Valero's main data warehouse is based on SAP software, and it has some data in an Oracle data warehouse. The company uses a single BI tool: Information Builders' WebFocus.

"The key is understanding the business processes that occur at Valero and translating that into a system design," Hewitt says. "That's the No. 1 priority — understanding what the user wants to see and then figuring out how to get that onto a platform that allows the users to get the data and eventually use the BI tool themselves."

Hewitt's group builds standardized queries and reports and enables some users to build their own queries. For instance, the marketing and wholesale groups like to look at data in different ways, he explains, so they're given more flexibility. But on the financial and reporting side, "we produce reports for them so there's no chance they can put in the wrong formula," he says. And in order to ensure the highest integrity of query results, IT collects requisite data from other sources and puts it into the SAP warehouse. "We go with one source of the truth," Hewitt says.

> **"That's the No. 1 priority – understanding what the user wants to see and then figuring out how to get that onto a platform that allows the users to get the data and eventually use the BI tool themselves.**
>
> **KIRK HEWITT,** DIRECTOR OF REPORTING AND FINANCIAL SYSTEMS, VALERO ENERGY CORP.

In addition, his group is responsible for financial data "from the time it's posted to the time it's reported on," Hewitt says, so that if a business unit has a problem with a report or a question about a number, there's one place to turn for answers.

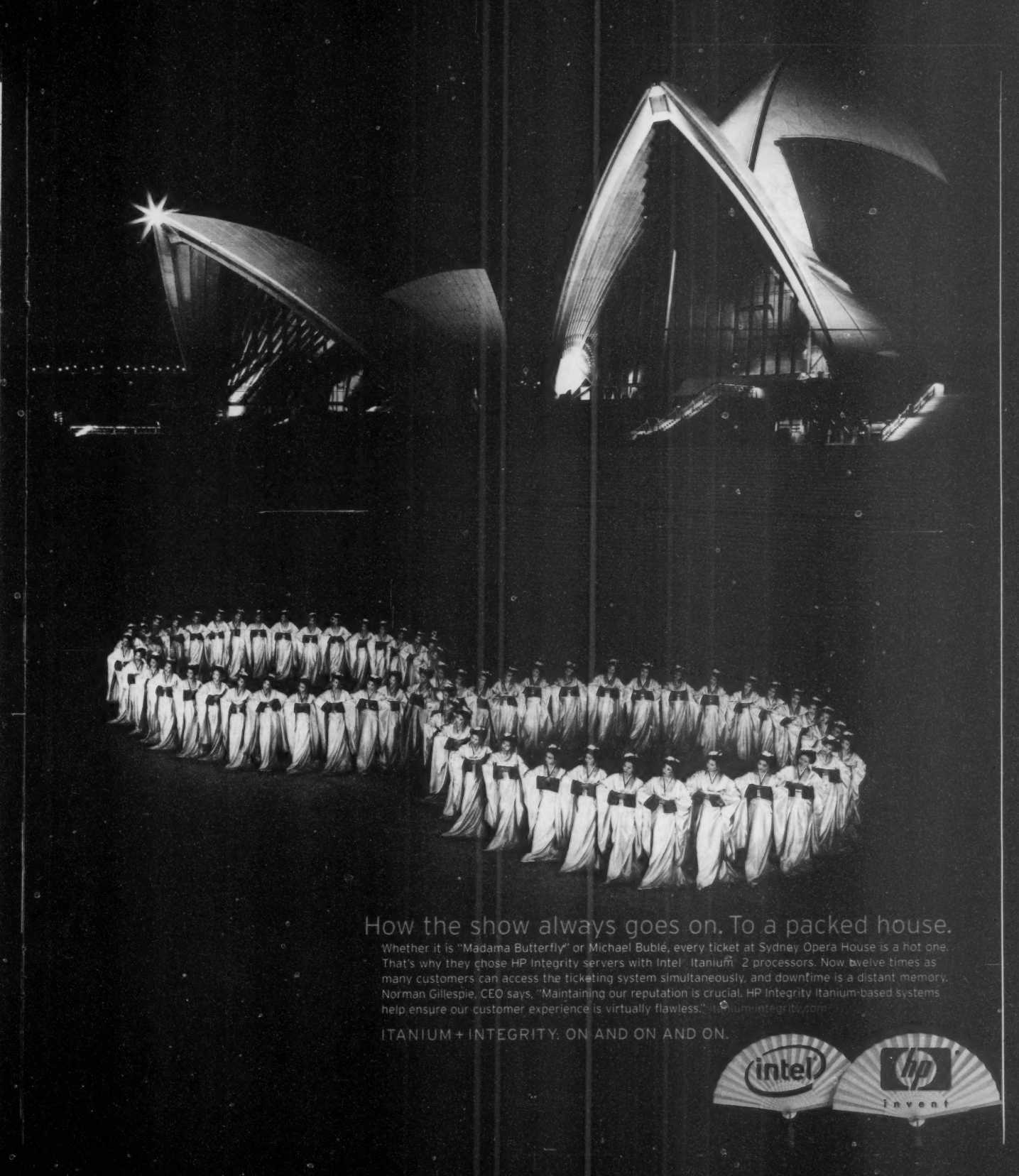
Hewitt sees a growing need for BI professionals with experience in NetWeaver, as well as the ability to build Web portals for presenting management reporting data. It can take months to find good candidates with expertise in those areas, he says.

In addition to people with those specialized skills, Hewitt also looks for developers who are good team players and very design-oriented. "Once you know the business process design, you have to reflect that in the business intelligence system," he says. Generally, developers don't interact directly with business users. That's left to the project managers and function-oriented staffers. "It's almost impossible to find all the skills you need in one person," he says.

Others concur that — given the number of skills required, as well as the nature of the job itself — BI is a real group effort. For instance, at Harrah's, "it's something that comes together when marketing, finance and IT work closely together," Pashko says.

"BI can never be completely run by the business or by IT," Howson agrees. "It has to be a joint effort." ▸

Brandel is a Computerworld *contributing writer. You can contact her at marybrandel@verizon.net.*



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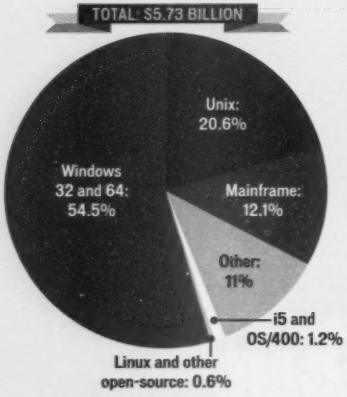
BI BOUNCE

Business intelligence revenue across the board saw an uptick in 2005 compared with 2004. Here's a breakdown by segment:

Query, reporting and analysis	Advanced analytics	Database-embedded
$4+ BILLION	$1.2 BILLION	$554 MILLION
UP 11.2%	UP 8.9%	UP 19.9%

WINDOWS WORLD

Ranked by revenue share, Windows was the BI platform of choice in 2005, followed by Unix and mainframe systems. Linux represented just a fraction but is the fastest-growing BI platform.



Note: Percentages do not total 100 because of rounding.

TOP 5 BI VENDORS

1	Business Objects SA	$795M
2	SAS Institute Inc.	$582M
3	Cognos Inc.	$567M
4	Microsoft Corp.	$353M
5	Hyperion Solutions Corp.	$287M

SOURCE: IDC, FRAMINGHAM, MASS., JULY 2006

MARK HALL

A Battle Over BI

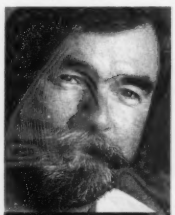
LOOK, *The New York Times* and similar news organizations are a sure bet to continue publishing stories about the National Security Agency or other government spies who are vacuuming up as much data as possible from as many sources as possible in their hunt for terrorists. And, yes, we'll learn that a good deal of the data includes private information about innocent folks like you and me. (Well, me, anyway.) I don't think any of us working in the IT industry are shocked by such revelations. Oh, a few politicians and corporate spokesmen have acted about as "shocked" as *Casablanca*'s Captain Renaud said he was when he discovered that gambling was going on in Rick's Cafe Americain. But no one I've talked with in IT has been surprised.

After all, we expect our intelligence agencies to be, well, smart. Marrying the vast computational resources at the NSA's disposal with the petabytes of information held by corporate IT in order to sift through the data to detect terrorist behavioral patterns just makes sense. Did anyone think it wasn't happening? Does anyone think it's not happening now? Do you think it will ever stop? (If you answered yes to all three questions, drop me a line. Have I got a bridge for you.) As Scott McNealy pointed out years ago, we need to get over our quaint frontier notion that information privacy is possible in the Google era. Still, that does not mean we should willy-nilly hand over information to every geek with a James Bond complex.

So, how does a CIO respond when Uncle Sam comes knocking and asks for live data to feed the government's decision-support systems? Maybe you should prepare for a little tap-tap on your door, particularly if your business gathers vast amounts of structured data on consumer behavior.

Data aggregators, telecom firms and financial services companies are obvious treasure-troves of information that intelligence analysts can use with their (very) advanced BI tools. And companies in these markets have been in the news for giving customer data to the feds. Busy Web sites, such as those of major retailers, publishers, search engines, software-as-a-service providers, social networks and other large-scale data repositories, either already have been or may soon be asked to cooperate with the government and hand over their customer data.

If they show up, what's your plan? Certainly, if law enforcement officials arrive with a warrant or subpoena trying to obtain evidence to prosecute a past crime or find a specific suspect or group, cooperation is required. And there's loads of legal precedent to make such help on your part natural. It's not quite the same thing when data analysts from an intelligence agency show up wanting all or much of your data to test an algorithm about predicting a terrorist's future behavior in order to locate and exploit, catch or kill him.



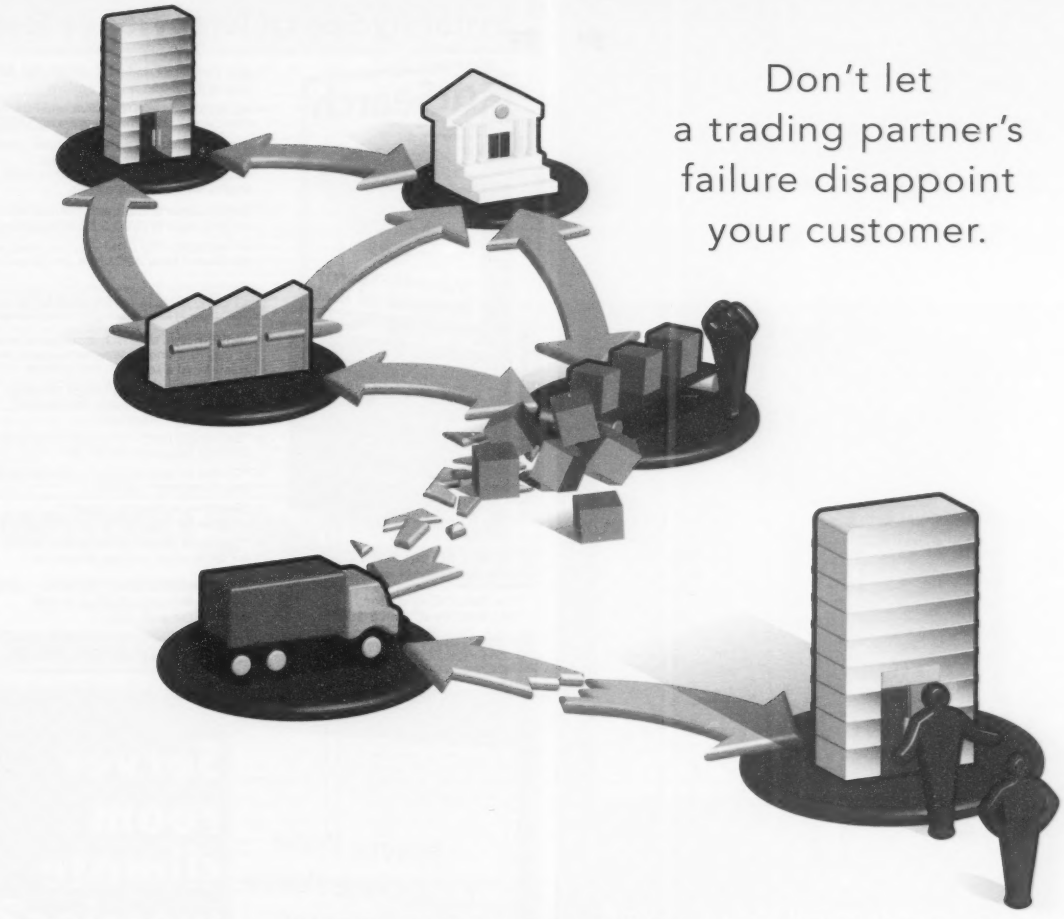
MARK HALL is a Computerworld editor at large. Contact him at mark_hall@computerworld.com.

Although CIOs won't get fired for helping their country during a national security crisis, they may get their companies in hot water with customers, who may object, protest and boycott those businesses because they feel that their privacy has been violated. Type "boycott AT&T" into your browser to see the thousands of sites and blogs already dedicated to hurting the telecom giant because it has given confidential customer information to the government. Then there are the lawsuits under way to punish AT&T for allegedly violating its own customer privacy agreement, a policy it has since revised, to the ire of many.

Civil libertarians will argue forcefully that by handing over private data, AT&T is helping herd this country further down an Orwellian path so that organizations like the Ministry of Truth will displace *The New York Times*. Officials charged with defending the nation counter with equally forceful arguments that protecting citizens against terrorist attacks such as the ones that happened in New York, Washington, Madrid and London means using every tool at hand, especially information analytics.

Where you stand in this national debate is not at issue. Whether your company is ready to become part of the public discussion is. If you're secretly helping the government in its information analysis work, it's safe to assume that it won't be a secret forever. This can be particularly problematic if you currently post a privacy policy that guarantees consumers that you will protect their data and not give it to anyone outside your company — as most privacy policies I've read state clearly.

I suggest that you collar your CEO and corporate counsel and have a discussion about what stance your company should take, whether you're involved in the war on terrorism or not. Protect privacy. Protect the nation. But don't forget to protect your company.



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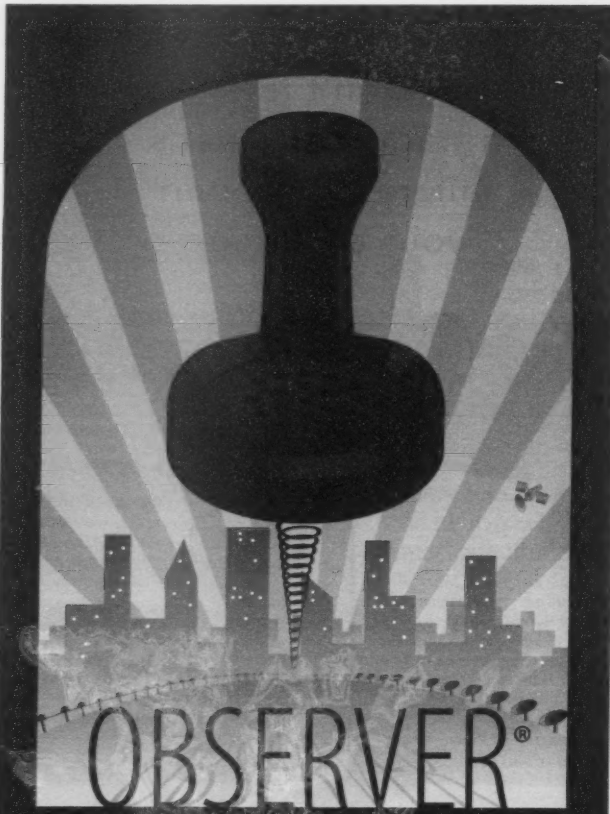

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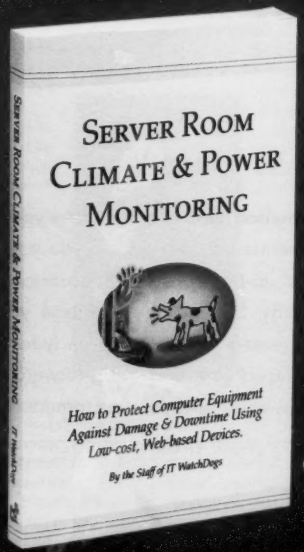
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Programmer Analyst, Norwalk, CT: Analyze, design, develop software applications using Oracle, Oracle based tools, SQL Server, PL/SQL, Developer/Designer, Visual Basic, ASP.NET in multiplatform environment. Work with MS tools to fine tune applications. Troubleshoot, maintain existing applications. Reply to: Logicsoft, Inc., 9 Lois Street Norwalk, CT 06851

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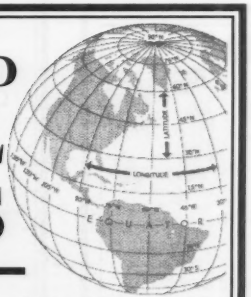

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Computer Professionals for Worth, IL. Programmer Analysts: Design & Develop software using J2EE, Oracle, UML, ASP, RUP, C++, Erwin, Delphi. Bachelors or Eqv req'd in Computers, Eng, Math or related field + 2 yrs of related exp. Software Engineers: Design & Implement software PL/SQL, VB, XML, UML, Oracle, Developer 2000 & Designer 2000; Masters or Eqv req'd in Computers, Eng., Math or related field + 1 yr of related exp. Will also accept Bachelors or Eqv + 5 years of progressive related work exp. Must have legal authority to work permanently in the U.S. Resumes to HR, Compro Consulting Group, Inc., 7179 West,111th St, Worth, IL 60482

Sr. Systems Database Engineer needed w/Masters or foreign equiv in Comp. Sci. or Comp. Applic. or Engg. or Math. & 1 yr. exp. to design, develop, maintain databases & s/ware development applied to technical, engineering problems for subsystems within the Application domain. Develop, document preparation, web development, unit testing & s/ware debugging using MYSQL, ORACLE, SYBASE, JAVA, JDBC, JAVA Swing, JSP, Servlets, XML, DHTML, HTML & JavaScript on Solaris, Unix & Windows NT based platforms. 1yr exp as Database Administrator is acceptable. Mail res to: STG, Inc. 910 Bergen Avenue, Suite #202, Jersey City, NJ 07306. Job Location: Jersey City, NJ or in any unanticipated locations in the U.S.A.

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Work closely with business units to gather systems development requirements and lead resulting projects and serve as liaison between designated business units and the IT dept. Must have a M.S. in Info Sys. or related plus application development using: MS SQL, Active Server Webpage Design, HTML, Java, Crystal Reports, and Visio and materials planning and user training experience. Must have legal authority to indefinitely work in the U.S. Please send resume demonstrating all minimum requirements to: Elina Wallis, Kozy Shack Enterprises, 83 Ludy Street, Hicksville, NY 11802. EOE.

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Programmer Analyst needed w/Bachelors or Foreign Equiv. in Comp. Sci. or Engg or Math. & 1 yr exp to design, analyze, develop & test client server applications using Oracle Suite (Developer 2000) as RDBMS on Windows, DOS & Unix OS. Provide full software development life cycle. Create Object Oriented Database, Procedure Builder, Functions, Triggers, Packages, Reports, PL/SQL, SQL LOADER, XML & TOAD. Translate UML design diagrams into code. Exp. prior to completion of Bachelors degree is acceptable. Mail resumes to: KGF Associates, Inc., 777 Washington Road, Suite 1, Parlin, NJ 08859. Job Loc: Parlin, NJ or in any unanticipated locations in the USA.

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Data Breaches Yield Few ID Thefts

BY JAIKUMAR VIJAYAN

Contrary to popular perception, computer data breaches are less likely to result in identity theft and other fraud compared with off-line incidents such as lost or stolen wallets and checkbooks.

That was the finding of a 12-month study of about 5,000 U.S. consumers by Pleasanton, Calif.-based analyst firm Javelin Strategy & Research. Javelin's study showed that despite the hype, data breaches were responsible for just 6% of all known cases of identity theft, compared with 30% from incidents like losing one's wallet. The research also showed that less than 1% of all individuals whose data was lost later became victims of identity theft.

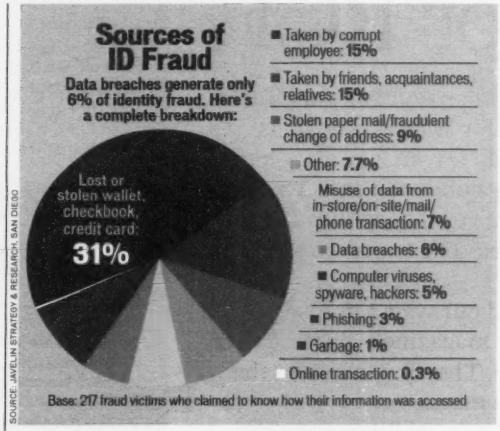
The numbers are important at a time when a spate of data breach disclosures have heightened consumer concerns and are fueling a debate among lawmakers about the need for more stringent data-protection laws, analysts said.

"There is a misperception that there is a one-to-one correlation between a data breach and ID theft," said Thomas Oscherwitz, vice president of government affairs and chief privacy officer at San Diego-based ID Analytics. But in reality, "the mere fact that you are part of a data breach doesn't mean that you are a victim of ID theft," he said.

The degree of risk can vary based on the type of data breach, Oscherwitz said. Breaches involving a deliberate hacking, for instance, are likely to be much more risky than those involving a lost disk or laptop, he explained.

A failure to make such distinctions can result in consumers taking wasted action for protecting themselves and also impose unnecessary burdens on corporations, said Mary Monahan, author of the Javelin study.

Said Andrew Jacquith, an analyst at Yankee Group Research Inc., "I think it's always going to be difficult to make a conclusive cause-and-effect relationship between ID theft and data breaches." So, he noted, the real emphasis of any national legislation has to be on measures that companies need to take to protect sensitive customer data.


Sources of ID Fraud
Data breaches generate only 6% of identity fraud. Here's a complete breakdown:
Lost or stolen wallet, checkbook, credit card: 31%
Taken by corrupt employee: 15%
Taken by friends, acquaintances, relatives: 15%
Stolen paper mail/fraudulent change of address: 9%
Other: 7.7%
Misuse of data from in-store/on-site/mail/phone transaction: 7%
Data breaches: 6%
Computer viruses, spyware, hackers: 5%
Phishing: 3%
Garbage: 1%
Online transaction: 0.3%
Base: 217 fraud victims who claimed to know how their information was accessed
SOURCE: JAVELIN STRATEGY & RESEARCH, SAN DIEGO

Data Breach Insurers Eye Smaller Firms

INSURANCE FIRM American International Group Inc. last week announced a new insurance policy designed to protect small and midsize businesses against the costs associated with a data breach.

The company's corporate identity protection policy is being targeted at businesses with revenue of up to $100 million or those holding information about the identities of as many as 1 million people. It offers coverage for expenses stemming from a data breach, including the costs of legal liability damages, defense counsel, regulatory action, customer notification and identity theft recovery services.

The policy was introduced in response to growing concern among small businesses about breach disclosure laws in multiple states that require firms to notify consumers of data compromises, said Nancy Callahan, division vice president of New York-based AIG's identity theft and fraud division.

"Businesses have started to understand that they have this obligation to protect data," Callahan said. "They know if they do have an information breach, they are going to face substantial unbudgeted expenses."

The policies start at $995 annually and go up to a "couple of thousand dollars" for coverage ranging from $250,000 to $5 million, Callahan said. Large companies can buy policies that pay up to $25 million for breach-associated costs under a separate program.

AIG's policy offers small and midsize businesses a "reasonable" way of dealing with the financial fallout of a data breach, said Khalid Kark, an analyst at Forrester Research Inc.

– JAIKUMAR VIJAYAN

Continued from page 1

E-voting

to the precinct election judges, she said.

The cards were located and then rushed to the voting places, but in some cases delivery took up to three and a half hours. To compensate for the delay, the polls were kept open an hour after their scheduled closing times.

The elections board is working to determine why the cards were missing from the bags, Roher said. She called the lack of cards a "regrettable omission" but declined to make further comment until the board's investigation is completed.

"We had 23 counties that had no problem remembering the cards belonged there," said Mike Morrill, a spokesman for Douglas Gansler, the Democratic candidate for Maryland attorney general. "How do you overlook a fundamental component of an e-voting system?"

Morrill said that some precincts had to photocopy provisional ballots because they ran out. Some ballots were handwritten on blank paper or even on campaign signs. Morrill also noted that "many races" in the state are too close to call, so a resolution will have to wait until the provisional ballots are counted.

Assigning Blame

Montgomery County Executive Douglas Duncan last week publicly called on Gov. Robert Ehrlich Jr. and the Maryland State Board of Elections to fire Montgomery County Board of Elections President Nancy Dacek. He also requested a state investigation into the matter.

Separately, Duncan called on Dacek to terminate county Elections Director Margaret Jurgensen over the incident.

"With the general election less than two months away, we cannot afford to run anything short of a seamless election," Duncan wrote.

Last week's glitches will make voters wary of touch-screen voting, said Maryland state legislator Anne Healey, who called the voting disruption a "major fiasco."

Earlier this year, Healey, who is vice chairman of the Ways and Means Committee in the Maryland House of Delegates, had advocated a failed bill that would have prohibited the state from using the TSx systems because of potential problems like those that occurred last week in Montgomery County.

"It certainly undermines the confidence in the whole system," said Healey. She also noted that some machines in Prince George's County were inoperable during the primary because the election judges lacked the proper passwords. Officials at the Prince George's County Board of Elections could not be reached for comment on those problems.

This situation underscores the fact that touch-screen voting is complex and prone to these sorts of errors, according to Ion Sancho, elections supervisor for Leon County, Fla. "The whole effort to reform our election problems [with touch-screen machines] really is a disaster," said Sancho, a critic of touch-screen systems.

Diebold spokesman David Bear noted that the Montgomery County problems were not technical. "This same human error — failure to provide all the necessary election-day supplies — would have been an election day issue regardless of the type of voting system," he said.

Roher said she expects election certification to be completed around Sept. 25.

Periodical postage paid at Framingham, Mass., and other mailing offices. Posted under Canadian International Publication agreement #40063800. **CANADIAN POSTMASTER:** Please return undeliverable copy to PO Box 1632, Windsor, Ontario N9A 7C9. Computerworld (ISSN 0010-4841) is published weekly, except a single combined issue for the last two weeks in December by Computerworld, Inc., 1 Speen Street, Box 9171, Framingham, Mass. 01701-9171. Copyright 2006 by Computerworld Inc. All rights reserved. Computerworld can be purchased on microfilm and microfiche through University Microfilms Inc., 300 N. Zeeb Road, Ann Arbor, Mich. 48106. Computerworld is indexed. Back issues, if available, may be purchased from the circulation department. Photocopy rights: permission to photocopy for internal or personal use is granted by Computerworld Inc. for libraries and other users registered with the Copyright Clearance Center (CCC), provided that the base fee of $3 per copy of the article, plus 50 cents per page, is paid directly to Copyright Clearance Center, 27 Congress St., Salem, Mass. 01970. Reprints (minimum 100 copies) and permission to reprint may be purchased from Renee Smith, Computerworld Reprints, c/o Reprint Management Services, Greenfield Corporate Center, 1808 Colonial Village Lane, Lancaster, Pa., 17601, (717) 399-1900, Ext. 150. Fax: (717) 399-8900. Web site: www.reprintbuyer.com. E-mail: computerworld@reprintbuyer.com. Requests for missing issues will be honored only if received within 60 days of issue date. Subscription rates: $5 per copy; U.S. – $99.99 per year; Canada – $130 per year; Central & So. America, $250 per year; Europe – $295 per year; all other countries – $295 per year. Subscriptions call toll-free (888) 559-7327. **POSTMASTER:** Send Form 3579 (Change of Address) to Computerworld, PO Box 3500, Northbrook, Ill. 60065-3500.

FRANK HAYES ■ FRANKLY SPEAKING

Get Ready for RC1

HERE IT COMES, ready or not. Microsoft has announced that the first release candidate for Windows Vista is ready. Vista RC1 is already on its way to 2 million beta testers who have seen previous builds of Vista. That's no big deal for corporate IT; we've all been through successive waves of prerelease Windows versions. The testers in the beta programs tend to be pretty well behaved.

But there's also a full-scale tsunami headed our way: Microsoft plans to bundle RC1 with 2 million computer magazines. These "cover mount" DVDs won't go to selected IT people. They'll wind up in the hands of anyone who drops a few bucks for a magazine.

And you know what that means. Among those 2 million magazine buyers will likely be some of your users — and they'll be eager to try this almost-free, not-quite-ready-for-prime-time Vista as soon as they can.

Thought you had until January, didn't you?

It's hard to blame Microsoft for what's really a smart marketing move. Vista is seriously late, and its most buzz-worthy features have been stripped away to get it out the door. Giving away millions of free copies that will continue to work until next May is a good way to seed the market. Who says Microsoft hasn't learned anything from Netscape and Linux?

Still, for us, in the hands of all those enthusiastic power users, Vista RC1 is a threat. We don't know what it will break or what risks it will create. And we don't have control over how it will hit us — or time to clean up a mess.

We need to do more than just neutralize that threat. We need to turn it into an advantage. How can you do that? Simple: Lay down the rules for those free RC1 users — and then turn them into Vista testers of your own.

Step 1: Keep RC1 outside your perimeter. Make this an absolute, non-negotiable directive for your users. Explain that this is beta software that uses unknown protocols, may have unknown security holes and could cause unknown problems with production applications. You just don't know, and you can't risk the business and their livelihoods by letting it in yet. So no smuggling in RC1 to install on PCs in the office.

FRANK HAYES, *Computerworld*'s senior news columnist, has covered IT for more than 20 years. Contact him at **frank_hayes@computerworld.com.**

Step 2: Start to test RC1 as soon as you can peel that DVD off the magazine cover. Top priority: finding firewall settings and antivirus software that works. Next up: checking your standard Web browsers, e-mail clients and instant messaging systems. Then seeing how well your company's external Web site works with it. And finally, seeing whether your production applications will break when they hit Vista. Why in that order? Because next is . . .

Step 3: Get ready for users with RC1 to connect to your systems. You know some of them will, once they've installed RC1 on their home PCs. Yeah, they shouldn't use it. But if you forbid it, you'll waste time playing cat-and-mouse as they try it anyway. So before they connect, require that they have personal firewalls and antivirus software installed — and absolutely no VPNs.

Step 4: Get feedback. Yes, really. Any users who can secure their Cracker Jack box RC1 installations and get them working properly are users you want to hear from. They'll tell you what works and what doesn't, including all those obscure pieces of software you haven't officially sanctioned but you know users have anyhow.

Step 5: Keep talking to those RC1 users. Tell them what you've learned, and keep picking their brains. You'll get invaluable insight into what problems the rest of your users will likely hit with Vista. You'll be injecting knowledge into the people most likely to answer coworkers' questions. You'll also make allies of these power users. You can make good use of that valuable connection later, both when Vista finally arrives and when you're doing other projects.

But start building it now. Because RC1 is coming — whether you're ready or not.

And the one thing you can't afford is *not.*

SHARK TANK

Almost *Too* Simple

After a break-in at this company, CFO acquires a security system without IT's input. It never works quite right, the vendor is fired, and now it falls to IT to support it. "One day, the system freaked out and locked down two floors," says a pilot fish there. "The computer that runs the security system was locked away in the data center. My boss was trying to break into the impenetrable data center to fix the problem when I suggested, 'Why not use the keys we got months ago for just such a scenario?' He sheepishly took the keys and unlocked the door."

And So?

Pilot fish gets the job of making sure all changes to production systems are documented according to IT's procedures. "But I found that most program changes on our distributed applications were not following the rules," fish says. "When I raised this issue, it was obvious that the application programming and network staffs did not comprehend the concept of change management. One response I got was, 'All we are changing is executables.' "

Got Your Backup?

Net admin pilot fish schedules her vacation months in advance and makes sure her predecessor is available as backup while she's gone. "Imagine my surprise when I dialed in on my first day of vacation and saw e-mails about some serious problems at work – followed by my predecessor's e-mail telling me she'd decided to take off the rest of the week also," grumbles fish. "I canceled my vacation and went back to work the next day as she left for vacation. Someone obviously needs to define 'backup' to her."

Gone

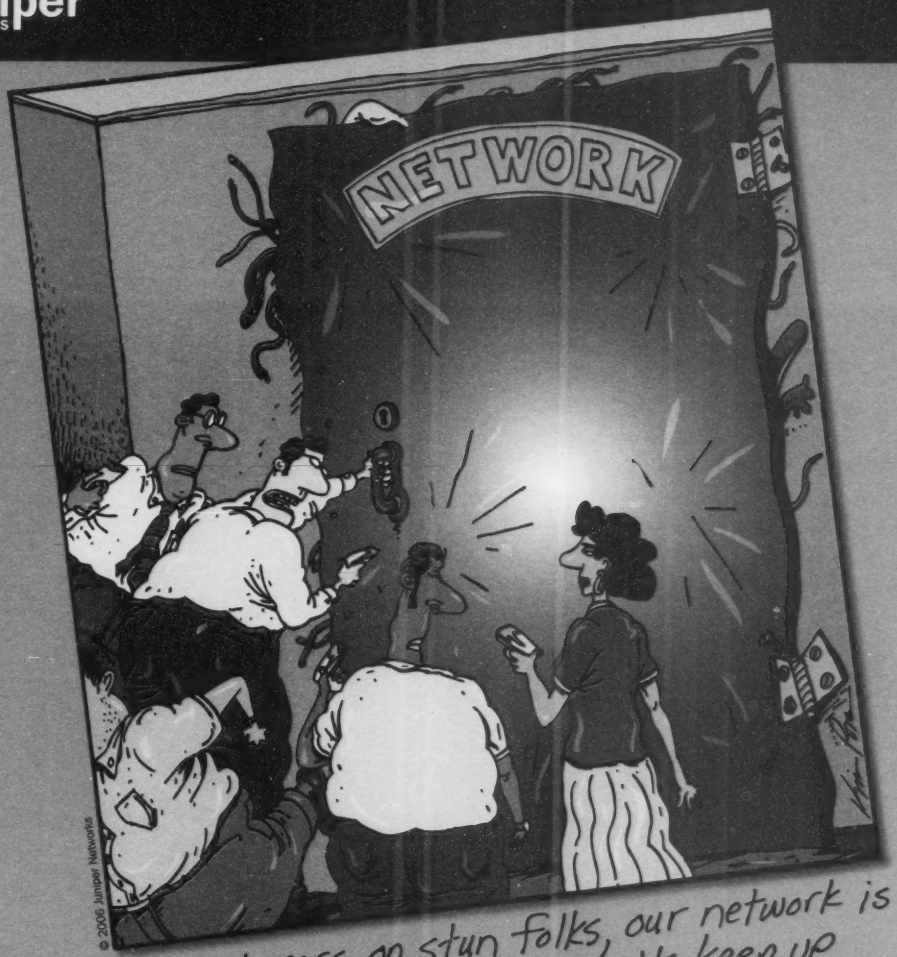
Help me recover a document, user tells pilot fish. But after many minutes of trying to find it, fish is baffled. "I finally asked her to go step by step through what she did," says fish. "Turns out she created the document but was interrupted and hit 'close,' saying no to the 'save' dialog box. I did my best not to start laughing but simply explained that a document that was never saved cannot be recovered."

Keep on Clickin'

User calls complaining that when he prints scanned PDF documents, he gets several copies, but only with PDFs. Show me what you're doing, says support pilot fish. "I watched him open a document, hit the print icon at the top, click the next-page arrow, click the print icon, click the next-page arrow and so on until he got to the end," fish says. "Pretty easy to figure out why he got four copies of the four-page document."

SEND SHARKY A COPY – JUST ONE – of your true tale of IT life at **sharky@computerworld.com.** You'll score a sharp Shark shirt if I use it. And check out Sharky's blog, browse the SharkIves and sign up for Shark Tank home delivery at **computerworld.com/sharky.**

Juniper NETWORKS



"Set phasers on stun folks, our network is going berserk since it can't keep up with our users,...uh, why didn't we call Juniper in the first place?"

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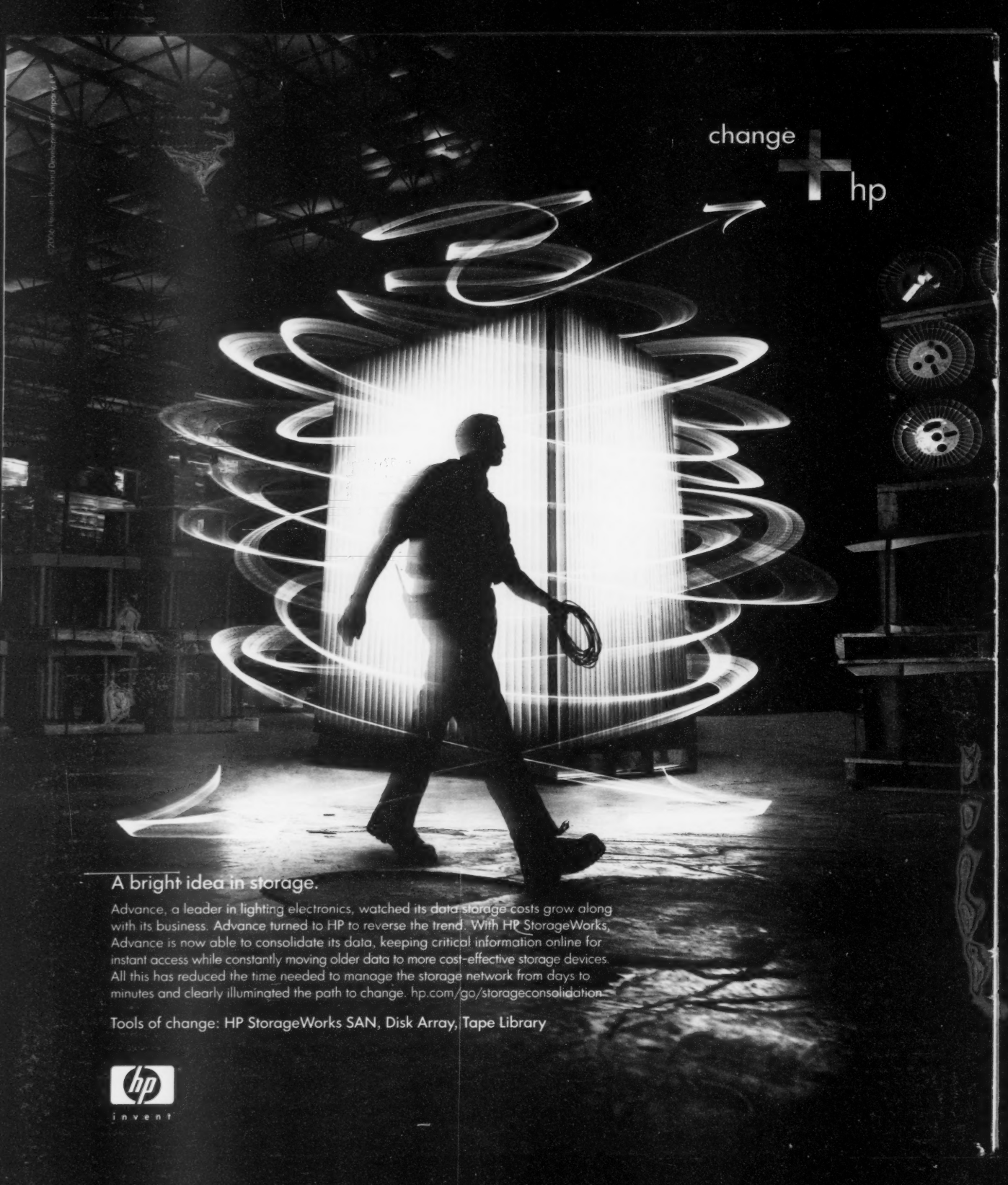
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